

MEDICINE BOW NATIONAL FOREST

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Revised Land and Resource Management Plan

# Geographic Areas

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## Introduction

**A** Geographic Area is a watershed or aggregation of watersheds, 125,000 acres or smaller, in which management is directed toward achieving a specified desired condition.

### Relationship to Forest Plan Direction

Analyses at the geographic area level provide a framework for short and long-term projects, for monitoring the effectiveness of forestwide and management area standards and guidelines, and for achieving forestwide goals and objectives. At this level, landscape or watershed issues are identified and management activities are planned to implement the forest plan.

Geographic areas help to recognize interactions between management area prescriptions in a given area and monitor the effects of management activities, locally and forestwide. Aggregation of management area prescriptions to the geographic area level ties land management activities to the landscape scale.

### Desired Condition

Geographic area desired condition is based on the unique combination of ecological and social processes inherent to the defined area. The direction needed to respond to these unique conditions is provided in the Geographic Area Desired Condition and Geographic Area Objectives, Strategies, Standards, Guidelines sections. Application of the management area prescriptions and associated standards and guidelines will move specific portions of each geographic area towards the desired condition.

### Purpose of Geographic Areas

- ♦ Geographic areas will be the focal point for implementing forest plan decisions based on ecological assessments at various levels in collaboration with other land managers.
- ♦ Geographic areas link the forest plan to management at a landscape or watershed scale.
- ♦ Geographic areas provide flexibility to respond to unique resource situations.
- ♦ Geographic areas provide a tool for better communication with the public.

## Description of Geographic Areas

Twenty-eight geographic areas have been established on the Medicine Bow National Forest (see below). They vary in size from 12,194 acres to 121,153 acres. The location of each geographic area is shown on the following map. Geographic areas are also found in the accompanying Management Area map.

Table 3-1. Geographic Areas on the Medicine Bow National Forest by mountain range.

Mountain Range	Geographic Area	Acres
Laramie Range	Bear Creek	57,362
	Box Elder	121,153
	Cottonwood Creek	67,603
	Horseshoe Creek	63,284
	LaBonte Creek	79,480
	Palmer Canyon	32,363
	Warbonnet	16,536
Sherman Mountains	Pole Mountain	55,584
Sierra Madre	Battle Creek	26,458
	Beaver Creek	46,498
	Encampment River	77,538
	Northeast Sierra Madre	61,568
	North Savery	30,390
	South Savery	76,479
	Upper Little Snake River	43,286
Snowy Range	Barrett	12,194
	Bow River	52,276
	Brush Creek	40,734
	French Creek	34,873
	Lower Douglas Creek	101,910
	Middle Fork	35,352
	North Fork	25,234
	Pass Creek	20,201
	Pennock Mountain	24,014
	Platte River	59,955
	Sheep Mountain	24,772
	Snowy Range, Eastern Front	62,633
	Upper Douglas Creek	36,307

Map 3-1. Location of geographic areas

## **Geographic Areas in the Laramie Range**

Bear Creek

Box Elder

Cottonwood Creek

Horseshoe Creek

LaBonte Creek

Palmer Canyon

Warbonnet

## Bear Creek Geographic Area

**Setting** - Ponderosa pine (33%) and lodgepole pine (12%) dominate this 57,362-acre area, 56% of which is in federal ownership. Grass, forbs, and shrubs make up 5% of the vegetation. Laramie columbine, an R2 sensitive plant, occurs in rocky areas in this GA. Within the forested area, 34% is considered late successional. There are timbered areas with rock outcrops and scattered areas of open parks.

This area is characterized by a feeling of remoteness. Throughout the area, ranching operations are visible in the foreground with National Forest in the background. There is limited public access to most of this geographic area.

This GA contains the headwaters of the North Laramie River as well as several other perennial drainages (Bear Creek, Cow Creek, Kloer Creek, and Friend Creek). Friend Creek and Bear Creek support thriving fisheries of brook trout, rainbow trout, and various species of suckers, shiners, and chubs. Leopard frogs are abundant in this area. There are numerous active beaver ponds on the perennial drainages.

Year-round habitat supports a large elk and deer population. The elk herd migrates from this area to winter range on the southern and western edges of the GA. There are some bighorn sheep in this GA; the southeast portion of the area provides crucial winter range for this species. Northern goshawks nest in the area. Preble's meadow jumping mice (TES species) have been found in the area.

There is fairly heavy recreation use in this area, particularly during fall hunting season. There is one campground, Friend Park, and an associated trail system from the Friend Park area. The Laramie Peak Trail is the most heavily used on the District. The trail is routinely used by ATVs. It is a destination trail to the top of Laramie Peak and also used to access and maintain the electronic site there.

There are no known valuable locatable or leasable minerals in the area. There have been historical mineral entries for mineral material—gravel. There are reserves of decomposed granite, gravel, and building stone, but no development is anticipated.

Unique areas and features include the following:

- ♦ Evidence of the Bear Head Fire/Murphy Ridge Fire (1996).
- ♦ Tremendous visual diversity in the area. Laramie Peak offers an impressive vista.
- ♦ The Arapaho Trail – a low standard road and possible historic travelway.
- ♦ The Laramie Peak electronic site, a significant relay in the state.
- ♦ Laramie Peak was a landmark for Mormon and Oregon Trail emigrants as the first mountain they could see as they approached the Rockies.



**Management Area Prescription Allocation** – The management area prescriptions applied to the Bear Creek Geographic Area are listed in the following table.

Table 3-2. Bear Creek management area prescriptions.

#	MA Prescription	Acres	Percent of Total Area
1.31	Backcountry Recreation, Year-round Nonmotorized	6,954	12
1.33	Backcountry Recreation, Summer Nonmotorized with Winter Snowmobiling	4,865	9
3.31	Backcountry Recreation, Year-round Motorized	81	<1
5.12	General Forest and Rangelands, Rangeland Vegetation Emphasis	11,110	19
5.41	Deer and Elk Winter Range	7,487	13
5.42	Bighorn Sheep Habitat	1,514	3
8.21	Developed Recreation	10	<1
	Nonfederal land	25,341	44
	Total	57,362	100

Source: GIS (ARC/Info), allocation and geographic area layers

### Geographic Area Desired Condition

Ponderosa pine will continue to be the dominant cover type. A variety of successional stages will be present with an emphasis on late successional forest, and larger patch sizes in areas allocated to Backcountry Recreation (21%).

Natural processes and vegetation patterns will be apparent in these areas. Forested portions of these areas will be dominated by older late successional habitats with occasional increases of early successional habitats as a result of fire, insects, and disease.

Dispersed motorized recreation opportunities will occur primarily in the northwestern and central portions of the area. Backcountry nonmotorized with winter snowmobiling opportunities (9%) will prevail in the Cow Creek Mountain portion of the area. Backcountry Recreation year-round nonmotorized will dominate the eastern portion (12%).

There will be quality habitat in big game winter range along the southern and western edge of the area. In riparian areas, vegetation will include a mix of seral stages, including various age classes of aspen and willow.

A variety of recreation opportunities will be available from backcountry nonmotorized to camping in developed sites and motorized use on the Laramie Peak Trail. The Laramie Peak electronic site, and utility corridors serving it, continue to meet the communication needs of the surrounding communities and government

agencies. The trail from Friend Park is managed to accommodate both the utility corridor and recreation trail needs.

**Geographic Area Objectives, Strategies, Standards, and Guidelines**

**Objectives:**

1. Within the planning period, acquire right-of-way access across other ownerships into the Bar M Mountain/Windy Peak area and the Flat Top Mountain area.
2. Maintain the Laramie Peak Electronic Site.
3. Optimize recreational and scenic opportunities at the summit of Laramie Peak.
4. Enhance opportunities for horseback use at the Roaring Fork Trailhead and in the Cow Creek areas including ancillary facilities.

**Strategies:**

1. Implement the Laramie Peak Bighorn Sheep Habitat Management Plan.
2. Plan and construct trails in the Cow Creek area to connect to existing trails to create an overall trail system.

**Standard:**

1. Manage domestic sheep to provide adequate and effective separation from bighorn sheep, avoiding direct contact between the two.

### Box Elder Geographic Area

**Setting** – This 121,153-acre area (38% federal ownership) contains scattered stands of limber pine (4%) and subalpine fir (1%). The western part of the area has limber pine interspersed with ponderosa pine (2%) and Douglas-fir (<1%). Most lodgepole pine stands (23%) in the area are heavily infested with mistletoe. Isolated aspen stands comprise a minor component of the vegetation (<1%). Grass, forbs, and shrubs make up 5% of the vegetation. Within the forested area, 16% is considered late successional. See the preferred alternative for a detailed map of this geographic area.

The western part of the area is remote and primitive. This area is colder and wetter with more drainages. The southern edge of the area is the transition zone between the Laramie Plains and the Forest.

Major perennial drainages in the area are Deer Creek, Box Elder Creek, and LaPrele Creek and the headwaters of the Little Medicine Bow River. Deer Creek is a regionally important recreational fishery for the state. Dominant species are rainbow and brook trout. Fish habitat improvement structures have been installed in Deer Creek and some tributaries. Boreal toads have been found in the area. Beaver are present in many drainages.

This area supports deer, elk, blue grouse, sage grouse, and some turkeys. Bear and mountain lion are also present. This area has the highest density of goshawk nests on the Laramie Range. There is deer, elk, and bighorn sheep winter range in the northeast portion of the area. Preble's meadow jumping mice have been found in the area.

Primary recreation opportunities are big game hunting, camping, and fishing. High quality fishing opportunities are constrained by limited access. Campbell Creek Campground is the only developed campground in the area. Dispersed camping is concentrated along drainages and along National Forest System (NFS) roads with public access. LaPrele Guard Station offers a public cabin rental opportunity. There are limited motorized and nonmotorized trails in the geographic area.

During the late 1800s and early 1900s, this area produced commercial quantities of copper. There are probably deposits of feldspar, garnet, quartz, chert, agate, and copper in the area. There are abandoned mines and prospect holes in the area, but those that posed a hazard to people and wildlife have been mitigated. Mineral material development has been limited to minor entries for road gravel.

Unique areas and features include the following:

- ♦ Distinctive landscapes in Davis Peak, Squaw Mountain, Gunnysack Peak, and Buffalo Peak.
- ♦ LaPrele Guard Station, the first Ranger Station on the Laramie Peak unit and it is listed on the National Register of Historic Places.
- ♦ The Box Elder Road, a historic military road from Medicine Bow to Fort Fetterman.
- ♦ Buffalo wallows in the Deer Creek drainage.
- ♦ Bighorn sheep habitat.

**Management Area Prescription Allocation** – The management area prescriptions applied to the Box Elder Geographic Area are listed in the following table.

Table 3-3. Box Elder management area prescriptions.

#	MA Prescription	Acres	Percent of Total Area
1.33	Backcountry Recreation, Summer Nonmotorized with Winter Snowmobiling	12,884	11
3.31	Backcountry Recreation, Year-round Motorized	9,553	8
3.5	Forested Flora and Fauna Habitats, Limited Snowmobiling	18,557	15
5.12	General Forest and Rangelands, Rangeland Vegetation Emphasis	4,893	4
5.41	Deer and Elk Winter Range	279	<1
	Nonfederal land	74,987	62
	Total	121,153	100

*Source: GIS (ARC/Info), allocation and geographic area layers*

### Geographic Area Desired Condition

Lodgepole pine will continue to be the dominant cover type. A variety of successional stages will be present with an emphasis on late successional forest, and larger patch sizes in areas allocated to Backcountry Recreation and Forested Flora and Fauna (34%).

Natural processes and vegetation patterns will be apparent in these areas. Forested portions of these areas will be dominated by older late successional habitats with occasional increases of early successional habitats as a result of fire, insects, and disease.

Dispersed motorized recreation opportunities will continue to be limited by available public access. Access and trails to provide quality big game hunting opportunities

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will be increased. Existing developed recreation sites and opportunities are maintained.

Backcountry nonmotorized with winter snowmobiling opportunities (11%) will prevail in the central portion of this geographic area. Backcountry year-round motorized opportunities (8%) will be available in the eastern portion of this geographic area.

In riparian areas, vegetation would include a mix of seral stages, including various age classes of aspen and willow. High quality big game habitat will occur throughout the area.

### Geographic Area Objectives, Strategies, Standards, and Guidelines

#### Objectives:

1. Within the planning period, acquire right-of-way access across other ownerships into the Russell's Camp area.
2. Acquire lands along the Cold Springs Road and around the Campbell Creek Campground to enhance public access and recreational opportunities.
3. Coordinate with the state to provide recreation opportunities in the Cold Springs Road Corridor.

#### Strategies:

1. Reconstruct Elkhorn Creek Trail and establish a trailhead.
2. Connect existing trails to develop a trails system throughout the geographic area.
3. Preserve and interpret the LaPrele Guard Station while enhancing recreation opportunities.

#### Standard:

1. Manage the Twin Peaks trail (FDT 618) for motorized use.

#### Guidelines:

1. Adhere to agreements in the Memorandum of Agreement between the Forest Service and Natural Resources Conservation Service for the Hydrometeorological Data Collection Sites shown in the table below:

Table 3-4. Hydrometeorological data collection sites.

Site Name	Station #	Elevation	Township	Range	Section
LaPrele Creek	05G04S	8463	29N	75W	32
Reno Hill	06G02S	8500	30N	77W	17

2. Implement management activities in the Deer Creek drainage to maintain or enhance fisheries.

## **Cottonwood Creek Geographic Area**

**Setting** – The common forest vegetation types in this 67,603-acre area (36% federal ownership) are ponderosa pine (32%) intermixed with aspen (<1%). Grass, forbs, and shrubs make up 2% of the vegetation. In the late 1980s, this area experienced a significant infestation of mountain pine beetles. Most of the mature ponderosa pine died as a result. Laramie columbine has been found in several locations in this GA. Within the forested area, 43% is considered late successional.

This GA has a large section of private land with year-round residences. The private lands are in the drainage bottoms; the NFS land is on the uplands. Historically, there was more commercial timber harvest in this GA. There have also been several landscape-scale fires in this area.

The North Laramie River, Cottonwood Creek, and Kloer Creek are the major perennial drainages in the GA. The North Laramie River provides a significant recreational fishery, with brown and rainbow trout. Boreal and Woodhouse toads have been found in this GA.

The majority of this GA is big game winter range, including crucial winter range for deer, elk, and bighorn sheep. There are bighorn sheep lambing areas. There have been bighorn sheep habitat improvement projects, including prescribed burns and water developments. Numerous Preble's meadow jumping mice have been found in this area. Northern goshawks nest in many portions of the GA.

The primary recreation use is big game hunting in the fall. Overall, use is moderate, with the exception of the North Laramie River area which offers recreational opportunities in the spring, summer, and fall. There are no developed campgrounds; there are two system trails.

The Laramie Peak electronic site (also in the Bear Creek Geographic Area) is a significant relay in the state. The utility corridor from Cottonwood Park to the top of Laramie Peak is necessary to operate this site.

There are no known leasable minerals in the area. Extensive prospecting occurred at the turn of the century, but there was no commercial development. In the mid 1990s, several claims, probably copper, were staked south of Albany Peak, but no exploration occurred. Mineral materials development has been limited to minor extractions of gravel for roads. The only anticipated mineral development is periodic minor gravel extraction for road maintenance.

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Unique areas and features include the following:

- ♦ Steep, rocky canyons in the North Laramie River drainage.
- ♦ Rainbow End (guest ranch) is a historic site in the North Laramie River drainage.
- ♦ On Albany Peak, there was a timber reserve and a sawmill for the military stationed at Fort Laramie in the 1860s and 1870s.
- ♦ Evidence of past fires: Bear Head/Murphy Creek, 1996; Cottonwood Park, 1960s.
- ♦ Black Mountain Fire Lookout, which is located on State School Trust Land, is a designated historical site. It is still staffed for fire detection and communication.
- ♦ There are several organized summer camps on adjacent private lands, one of which has a permit to operate on the Forest.
- ♦ Critical habitat for Preble's meadow jumping mouse.

**Management Area Prescription Allocation** – The management area prescriptions applied to the Cottonwood Creek Geographic Area are listed in the following table.

Table 3-5. Cottonwood Creek management area prescriptions.

#	MA Prescription	Acres	Percent of Total Area
1.31	Backcountry Recreation, Year-round Nonmotorized	6,693	10
3.58	Crucial Deer and Elk Winter Range	2,279	3
5.12	General Forest and Rangelands, Rangeland Vegetation Emphasis	4,210	6
5.41	Deer and Elk Winter Range	7,703	12
5.42	Bighorn Sheep Habitat	3,692	5
	Nonfederal land	43,026	64
	Total	67,603	100

Source: GIS (ARC/Info), allocation and geographic area layers

### Geographic Area Desired Condition

Ponderosa pine will continue to be the dominant cover type. A variety of successional stages will be present with an emphasis on late successional forest, and larger patch sizes in areas allocated to Backcountry Recreation (10%).

Natural processes and vegetation patterns will be apparent in this area. Forested portions of these areas will be dominated by older late successional habitats with

occasional increases of early successional habitats as a result of fire, insects, and disease.

Dispersed motorized recreation opportunities will occur primarily in the central portion of the area. Semi-primitive nonmotorized recreation opportunities will be available (26%). Backcountry year-round nonmotorized opportunities will occur in the western portion (10%).

In riparian areas, vegetation would include a mix of seral stages, including various age classes of aspen and willow.

The area will have high quality big game winter range (20%) and Preble's meadow jumping mouse habitat.

### **Geographic Area Objectives, Strategies, Standards, and Guidelines**

#### **Objective:**

1. Within the planning period, acquire right-of-way access to the north end of Albany Peak.

#### **Strategies:**

1. Implement the Laramie Peak Bighorn Sheep Habitat Management Plan.
2. Plan and construct trailheads and connecting trails to compliment trails in adjacent geographic areas.
3. Preserve and interpret the Rainbow End Complex while enhancing recreation opportunities.

#### **Standards:**

1. Maintain critical habitat for Preble's meadow jumping mouse.
2. Manage domestic sheep to provide adequate and effective separation from bighorn sheep, avoiding direct contact between the two.



## Horseshoe Creek Geographic Area

**Setting** – Ponderosa pine is the major forest vegetation type (35%) in this 63,284-acre area (50% federal ownership). There is also lodgepole pine (7%) at higher elevations and small aspen stands (<1%) in wetter areas. Grass, forbs, and shrubs make up 6% of the vegetation. In the late 1980s, this area experienced a significant infestation of mountain pine beetles. Most of the mature ponderosa pine died as a result. Laramie columbine has been found in several locations in this GA. Within the forested area, 34% is considered late successional.

The Esterbrook area is one of the highest use areas in the Laramie Peak unit, and Ashenfelder basin, north of Laramie Peak, has some of the most remote, scenic, and rugged areas. There is a mix of primitive summer and winter motorized recreation opportunities in this area. Much of the NFS lands in this GA provides a scenic background from major travel corridors, including Interstate 25.

Horseshoe Creek, Ashenfelder Creek, Roaring Fork Creek, Three Cripples Creek, Salt Lick Creek, Stratton Creek, and Soldier Creek are the major perennial streams in the GA. Horseshoe and Ashenfelder Creeks are the primary recreational fisheries with rainbow and brook trout. Other aquatic species include suckers, chubs, crayfish, and leopard frogs.

The northern portion of this GA provides big game winter range and crucial winter range. Preble's meadow jumping mice have been found in the area. There are numerous northern goshawk nests. There is year-long bighorn sheep habitat in this GA. This area has abundant wild turkey populations, and there are bears and mountain lions in the area as well.

Primary recreation uses are big game hunting in the fall, as well as fishing, hiking, ATV riding, and dispersed camping. Recreational use on adjacent state lands is significant and impacts management on Forest System Lands. Esterbrook Campground is the only developed recreation site in this GA. Overall recreation use is moderate and occurs year-round. There are several system trails, including an extensive nonmotorized trail system in the Ashenfelder area.

There are no known leasable minerals in the area. At the turn of the 20<sup>th</sup> century, the Three Cripples mine produced commercial quantities of copper. Prospecting for copper in the Esterbrook area occurred in the 1990s and commercial quantities of copper may have been found. Development of locatable minerals in the area is not anticipated. There are two important gravel pits between Esterbrook and Esterbrook Campground. They provide gravel and decomposed granite used for roads and campgrounds.

Unique areas and features include the following:

- ♦ Remnants of an abandoned wooden, narrow-gage trolley built to haul logs.
- ♦ Remnants of several historic portable sawmill sets.
- ♦ Excellent opportunities for solitude and isolation in an undisturbed, pristine setting.
- ♦ Ashenfelder Special Interest Area.
- ♦ Recreation use in the Esterbrook community and adjacent Forest System lands reflect a mixture of private and public land values that can conflict or compliment.

**Management Area Prescription Allocation** – The management area prescriptions applied to the Horseshoe Creek Geographic Area are listed in the following table.

Table 3-6. Horseshoe Creek management area prescriptions.

#	MA Prescription	Acres	Percent of Total Area
1.31	Backcountry Recreation Year-round Nonmotorized	12,915	21
2.1	Special Interest Areas	2,062	3
3.31	Backcountry Recreation, Year-round Motorized	810	1
3.58	Crucial Deer and Elk Winter Range	1,887	3
4.3	Dispersed Recreation	2,964	5
5.12	General Forest and Rangelands, Rangeland Vegetation Emphasis	7,719	12
5.41	Deer and Elk Winter Range	3,101	5
8.21	Developed Recreation	82	<1
8.6	Administrative Sites	19	<1
	Nonfederal land	31,726	50
	Total	63,284	100

Source: GIS (ARC/Info), allocation and geographic area layers

### Geographic Area Desired Condition

Ponderosa pine will continue to be the dominant cover type. In riparian areas, vegetation will include a mix of seral stages, including various age classes of aspen and willow.

Natural processes and vegetation patterns will be apparent in this area. Forested portions of these areas will be dominated by older late successional habitats with

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occasional increases of early successional habitats as a result of fire, insects, and disease.

Dispersed motorized recreation opportunities will occur primarily in the northeastern portion of the area. Semi-primitive nonmotorized recreation opportunities will be available in the central and southern portions of the GA (21%).

High-quality big game winter range will occur on 4% of the area.

### Geographic Area Objectives, Strategies, Standards, and Guidelines

#### Objectives:

1. Enter into land exchanges/purchases to consolidate landownership, especially to enhance heavily used dispersed recreation areas.
2. Work closely with the Esterbrook Community to provide complimentary recreation opportunities.
3. Within the planning period, acquire right-of-way access across other ownerships into the Green Ridge Area.

#### Strategy:

1. Implement the Laramie Peak Bighorn Sheep Habitat Management Plan.

#### Standards:

1. Manage the Laramie Peak trail (FDT 602) for motorized and nonmotorized use.
2. Manage domestic sheep to provide adequate and effective separation from bighorn sheep, avoiding direct contact between the two.

#### Guideline:

1. Adhere to agreements in the Memorandum of Agreement between the Forest Service and Natural Resources Conservation Service for the Hydrometeorological Data Collection Sites shown in the table below:

Table 3-7. Hydrometeorological data collection sites.

Site Name	Station #	Elevation	Township	Range	Section
Windy Peak	05G05S	7900	27N	73W	27

### LaBonte Creek Geographic Area

**Setting** – This 79,480-acre area (43% federal ownership) contains both ponderosa and lodgepole pine (18% and 17% respectively). The wetter areas have Engelmann spruce (<1%) and aspen (1%). Grass, forbs, and shrubs make up 2% of the vegetation. Laramie columbine has been found in several locations in this GA. Within the forested area, 28% is considered late successional.

This GA has heavy summer use, including camping, fishing, hiking, and ATV riding. LaBonte Canyon, with its numerous granitic outcrops, provides scenic opportunities. The area is also bisected by the historic Rock River to Fort Fetterman road. There are numerous recreational cabins on adjacent private lands.

LaBonte Creek, Porcupine Creek, North Horseshoe Creek, Big Bear Creek, and Curtis Gulch are the perennial drainages; all are trout fisheries. LaBonte Creek is the most important fishery; it contains both wild and stocked rainbow trout and wild brook trout. LaBonte Creek also has numerous fish habitat improvement structures. Woodhouse toads and leopard frogs are common in the riparian areas of all the perennial drainages.

Big game winter range is scattered throughout the GA. There are bighorn sheep lambing areas. There have been several bighorn sheep habitat improvements, including timber removal, prescribed burning, and water developments. Major identified big game travel corridors bisect the area. Wild turkeys are found throughout the area. Northern goshawks nest throughout the GA. There are bears and mountain lions in the area as well. There are two wildlife habitat allotments in this GA.

Most of the use in the GA involves motorized travel associated with big game hunting. There is heavy dispersed camping along the LaBonte Canyon Road. Curtis Gulch is the developed campground in the GA. There are two system trails here.

There are no known leasable minerals in this area. Extensive prospecting occurred in the late 1800s and early 1900s, but no commercial deposits were found. Mineral material mining has been limited to small amounts of gravel for specific projects. The only mineral development anticipated is gravel for road or recreation projects.

Unique areas and features include the following:

- ♦ Canyons with narrow bottoms, in some places less than 400 feet wide, and sheer rock walls, in places rising over 1,000 feet.
- ♦ Labonte Canyon Research Natural Area.

**Management Area Prescription Allocation** – The management area prescriptions applied to the LaBonte Creek Geographic Area are listed in the following table.

Table 3-8. LaBonte Creek management area prescriptions.

#	MA Prescription	Acres	Percent of Total Area
1.33	Backcountry Recreation, Summer Nonmotorized with Winter Snowmobiling	7,942	10
2.2	Research Natural Areas	3,023	4
3.31	Backcountry Recreation, Year-round Motorized	2,489	3
3.58	Crucial Deer and Elk Winter Range	318	<1
4.3	Dispersed Recreation	3,768	5
5.12	General Forest and Rangelands, Rangeland Vegetation Emphasis	4,225	5
5.41	Deer and Elk Winter Range	12,332	16
8.21	Developed Recreation	71	<1
	Nonfederal land	45,312	57
	Total	79,480	100

Source: GIS (ARC/Info), allocation and geographic area layers

### Geographic Area Desired Condition

Ponderosa pine and lodgepole pine will continue to be the dominant cover types. A variety of successional stages will be present with an emphasis on late successional forest, and larger patch sizes in Backcountry Recreation and the LaBonte Creek RNA (17%). In riparian areas, vegetation would include a mix of seral stages, including various age classes of aspen and willow.

Natural processes and vegetation patterns will be apparent in these areas. Forested portions of these areas will be dominated by older late successional habitats with occasional increases of early successional habitats as a result of fire, insects, and disease.

Dispersed motorized recreation opportunities will occur primarily in the south central portion of the area. Backcountry nonmotorized with winter snowmobiling opportunities (10%) will be provided in the northern portion of the GA. The area near Curtis Gulch Campground will provide both motorized and nonmotorized trail opportunities.

The area will provide high quality big game winter range (16%). Water-oriented recreation will be emphasized without degrading water quality and riparian condition.

**Geographic Area Objectives, Strategies, Standards, and Guidelines**

**Objective:**

1. Develop motorized access south of LaBonte Canyon to access Devil's Pass.

**Strategy:**

1. Implement the Laramie Peak Bighorn Sheep Habitat Management Plan.

**Standards:**

1. Manage the Curtis Gulch Trail (FDT 639) for nonmotorized use.
2. Maintain needed habitat including sufficient security areas to provide for crucial winter range.
3. Manage domestic sheep to provide adequate and effective separation from bighorn sheep, avoiding direct contact between the two.

### Palmer Canyon Geographic Area

**Setting** – This 32,363-acre area (17% federal ownership) contains ponderosa pine (14%), with minor amounts of limber pine (<1%). Grass, forbs, and shrubs make up 2% of the vegetation. Within the forested area, 28% is considered late successional.

Collins Creek is the major perennial stream. There is a small fishery, but it doesn't provide a recreational fishing opportunity.

The entire area is big game winter range, much of which is crucial. Much of the area is bighorn sheep winter range or crucial winter range.

Recreation use is low due to limited legal public access to NFS lands.

There are no known leasable minerals in the area. There was extensive prospecting in the late 1800s and early 1900s. There may be valuable minerals present but probably not in sufficient quantities for commercial development. There are valuable mineral materials, primarily building stone, in the area as demonstrated by adjacent commercial marble and black marble mines. The only foreseeable development on NFS land is minor gravel mining for roads.

Unique areas and features include the following:

- ♦ This area is adjacent to Wyoming Game and Fish Department's Laramie Peak Wildlife Habitat Unit with public access.
- ♦ The area is mostly exposed granite rock outcrops with sparse, scattered forest vegetative cover.

**Management Area Prescription Allocation** – The management area prescriptions applied to the Palmer Canyon Geographic Area are listed in the following table.

Table 3-9. Palmer Canyon management area prescriptions.

#	MA Prescription	Acres	Percent of Total Area
3.58	Crucial Deer and Elk Winter Range	887	3
5.12	General Forest and Rangelands, Rangeland Vegetation Emphasis	360	1
5.41	Deer and Elk Winter Range	1,350	4
5.42	Bighorn Sheep Habitat	2,792	9
	Nonfederal land	26,975	83
	Total	32,363	100

Source: GIS (ARC/Info), allocation and geographic area layers

### **Geographic Area Desired Condition**

This geographic area provides high quality big game winter range and bighorn sheep habitat.

### **Geographic Area Objectives, Strategies, Standards, and Guidelines**

#### **Objective:**

1. Where other landowners are willing, enter into land exchanges to consolidate landownership on the Laramie Peak unit as a whole. Isolated tracts within this geographic area should be considered for disposal through land exchange.

#### **Strategy:**

1. Implement the Laramie Peak Bighorn Sheep Habitat Management Plan.

#### **Standard:**

1. Manage domestic sheep to provide adequate and effective separation from bighorn sheep, avoiding direct contact between the two.



## Warbonnet Geographic Area

**Setting** – This 16,536-acre area (40% federal ownership) contains lodgepole pine (22%), with smaller amounts of ponderosa pine (5%) and limber pine (5%). Grass, forbs, and shrubs make up 6% of the vegetation. Within the forested area, 10% is considered late successional. The area has wet open parks and islands of spruce and lodgepole pine. The western part of the area is a transition zone into the Laramie Plains. The southern part of the GA is a transition into irrigated hay meadows on private and state land.

The primary perennial streams are Beaver Creek, Boulder Creek, and Manse Creek, with small fisheries that don't provide recreational fishing opportunities. The southern portion of the GA is big game winter range. This area has significant elk habitat and calving areas. Bighorn sheep can be found near Warbonnet Peak and in the southeast portion of the area.

Recreation use is low due to lack of public access. Most use occurs during the big game hunting season by adjacent private landowners and people who have access through the private lands. This area is important to the public for quality elk hunting despite the limited access. Some dispersed recreation use occurs in conjunction with hunting. There are no developed sites or system trails in the area.

There are no known leasable minerals in the area. Extensive prospecting occurred in the late 1800s and early 1900s, but there were no claims or economic development of locatable minerals. There are deposits of decomposed granite suitable for use on roads. The only foreseeable future development is minor gravel mining for road maintenance.

Unique areas and features include the following:

- ♦ Adjacent and/or contiguous to large blocks of BLM and state land.

**Management Area Prescription Allocation** – The management area prescriptions applied to the Warbonnet Geographic Area are listed in the following table.

Table 3-10. Warbonnet management area prescriptions.

#	MA Prescription	Acres	Percent of Total Area
5.12	General Forest and Rangelands, Rangeland Vegetation Emphasis	1,529	9
5.41	Deer and Elk Winter Range	5,048	31
	Nonfederal land	9,960	60
	Total	16,536	100

Source: GIS (ARC/Info), allocation and geographic area layers

### **Geographic Area Desired Condition**

Lodgepole pine will continue to be the dominant cover type. A variety of successional stages will be present. In riparian areas, vegetation would include a mix of seral stages, including various age classes of aspen and willow.

There will be a mix of motorized and nonmotorized recreation opportunities available on low standard roads.

The area will provide high quality habitat for big game.

### **Geographic Area Objectives, Strategies, Standards, and Guidelines**

#### **Objectives:**

1. Where other landowners are willing, enter into land exchanges/purchases to consolidate landownership, especially to enhance wildlife habitat and recreation opportunities.
2. Within the planning period, acquire right-of-way access across other ownerships into the Warbonnet area.

#### **Strategy:**

1. Implement the Laramie Peak Bighorn Sheep Management Plan

#### **Standard:**

1. Manage domestic sheep to provide adequate and effective separation from bighorn sheep, avoiding direct contact between the two.

## Geographic Area in the Sherman Mountains

Pole Mountain

## **Pole Mountain Geographic Area**

This geographic area is an isolated parcel of NFS land located approximately 20 miles southeast of Laramie on the Laramie District. Pole Mountain encompasses roughly 55,584 acres of broad rolling hills, which are dissected by drainages running in an east-west direction. The area includes 369 acres of private land, no state land, and 55,215 acres of National Forest land. Grasses and shrubs are the dominant vegetation (61%). Lodgepole and ponderosa pine make up 11% and 16% of the vegetation, respectively; there is also aspen (7%), and minor amounts of limber pine. Willow, aspen, sedges, and rushes dominate riparian vegetation. Within the forested area, 12% is considered late successional.

Major drainages include Lodgepole and Crow Creeks. Widespread beaver dams create abundant pools in all drainages. Beaver ponds at the lower elevations are heavily fished in the spring and summer, as they are the first to thaw on the District. Water quality is generally good. Middle Crow Creek is augmented with water from the Douglas Creek drainage (Snowy Range) and provides municipal water supply for the City of Cheyenne.

Current elk and antelope populations are above herd unit objectives, while the mule deer population is at the herd unit objective. Eastern and western boundaries of the area are considered mule deer winter range and the western and northern boundaries are elk winter range, including crucial winter range. The southwest boundary area is antelope crucial winter range. There are also elk calving areas within this area. Cliff and rock formations provide excellent habitat for raptors, including prairie falcons. Preble's meadow jumping mice have been trapped in eastern watersheds of the Pole Mountain area including branches of Lodgepole Creek and Crow Creek.

This area is of great importance to both local and out-of-state recreationists. Its proximity to Laramie, Cheyenne, and Interstate 80 makes it a convenient, popular recreation destination. There are five developed campgrounds, three developed picnic grounds, and one major visitor center. There are also numerous dispersed campsites located along or near the end of the many two-track roads that cover virtually the entire area. Technical rock climbing is very popular in the Vedauwoo and Blair areas and is known regionally as one of the best places to climb. Fishing is a common activity in the many streams and beaver ponds that cover the area. Big game hunting is also popular.

Summer trail use is also very popular for mountain bikers, hikers and, to a lesser degree, equestrians. The elevation and climate allow this area to open much sooner than areas on the main part of the Forest, so it is common to see people using the trails for summer recreation as early as April. Cross-country skiing is very popular at Tie City and Happy Jack with a series of trails that are groomed and maintained by local volunteers known as the Medicine Bow Nordic Association.

## GEOGRAPHIC AREAS

There is widespread evidence of historic use in the area. The majority of the hundreds of cultural sites fall into seven historic themes: American Indian, fur trapping and early exploration, logging, mining, historic sites, grazing and ranching, and military facilities. Outstanding sites include American Indian sites, the Lodgepole Trail, and various military facilities.

Unique areas and features include the following:

- ♦ Open shortgrass prairie with large rock outcrops.
- ♦ Headquarters Trail.
- ♦ Middle Crow Creek provides municipal water supply for the City of Cheyenne.

**Management Area Prescription Allocation** – The management area prescriptions applied to the Pole Mountain Geographic Area are listed in the following table.

Table 3-11. Pole Mountain management area prescriptions.

#	MA Prescription	Acres	Percent of Total Area
1.31	Backcountry Recreation, Year-round Nonmotorized	8,981	16
4.3	Dispersed Recreation	14,637	27
5.12	General Forest and Rangelands, Rangeland Vegetation Emphasis	14,120	26
5.41	Deer and Elk Winter Range	16,661	30
8.21	Developed Recreation	747	1
8.6	Administrative Sites	69	<1
	Nonfederal land	369	1
	Total	55,584	100

Source: GIS (ARC/Info), allocation and geographic area layers

### Geographic Area Desired Condition

Grasses and shrubs will continue to be the dominant cover type, with lodgepole and ponderosa pine intermixed. Rangeland vegetation is in good condition with a mix of seral stages present.

Dispersed motorized recreation opportunities will dominate this area, with backcountry nonmotorized opportunities occurring on 16% of the area. The area will continue to be an important and highly used recreational area on the Forest. Fewer low standard roads will be present.

Current developed recreation facilities will be maintained and improved.

The Middle Crow Creek watershed will continue to be managed under multiple-use prescriptions that protect or improve the quality of municipal water for the City of Cheyenne.

### Geographic Area Objectives, Strategies, Standards, and Guidelines

#### Objectives:

1. Complete a master trail management plan for the Pole Mountain area within the next five years.
2. Reduce unauthorized off route use within the Pole Mountain Geographic Area.
3. Ensure multiple use management of the Middle Crow Creek watershed is compatible with protection of domestic water supply needs.

#### Strategies:

1. Work with partners (Corp of Engineers, State, EPA etc.) to dispose of military ordnance that pose safety risks to the public.
2. Construct and/or improve trailheads to access the Headquarters National Recreation Trail.

#### Guideline:

1. Adhere to agreements in the Memorandum of Agreement between the Forest Service and Natural Resources Conservation Service for the Hydrometeorological Data Collection Sites shown in the table below:

Table 3-12. Hydrometeorological data collection sites.

Site Name	Station #	Elevation	Township	Range	Section
Pole Mountain	05H01	8395	15N	72W	23
Crow Creek	N/A*	8280	14N	71W	5

\* Site number not available at this time

## **Geographic Areas in the Sierra Madre Mountains**

Battle Creek

Beaver Creek

Encampment River

Northeast Sierra Madre

North Savery

South Savery

Upper Little Snake River

## Battle Creek Geographic Area

This 26,458-acre area (87% federal ownership) is characterized by unbroken forests. Vegetation is dominated by a mix of spruce-fir (38%), lodgepole pine (23%), and aspen (15%). Grasses, forbs and shrubs make up 11%. Engelmann spruce and subalpine fir are the dominant vegetation types at the higher elevations in the eastern part. Within the forested area, 45% is considered late successional. Most of the forested stands in this geographic area resulted from fires that occurred prior to 1860.

There are two distinct vegetation zones in the area: aspen/lodgepole pine in the west half and spruce-fir in the east, generally at higher elevations. The western half is in the vegetation/elevation zone preferred by nesting goshawks. The Lost Creek Bowl/Bridger Peak area is important elk summer range. The spruce-fir forest (both in and out of Huston Park Wilderness Area) provides habitat for late-successional forest wildlife species. There is potential bighorn sheep summer range in Huston Park Wilderness Area.

Many of the streams and lakes in the Battle Creek GA are important recreational fisheries and are easily accessible because of an extensive road system. Both native fish and introduced trout are known to occur in the Battle Creek GA lakes and streams. The introduced (non-native) fish species are trout: brown trout, brook trout, and rainbow trout. Native fish species include: Colorado River cutthroat trout, mountain whitefish, roundtail chub, bluehead sucker, creek chub, mottled sculpin, mountain sucker, flannelmouth sucker, white sucker, and Bonneville redbelly darter. A variety of wetland habitats occur in the Battle Creek GA, although the most important (to amphibians and aquatic insects) wetland habitats are the beaver ponds.

Although surface water in the area is good overall, there are two stream reaches that are on the State of Wyoming 303(d) list of “Waterbodies With Water Quality Impairments” (WYDEQ, 2002):

- ♦ Haggarty Creek from Ferris-Haggarty mine to W. Fk. Battle Creek (Copper)
- ♦ West Fork Battle Creek from Haggarty Cr. To Battle Creek (Copper, Cadmium, Silver)

Both of these stream segments are listed as water quality impaired due to metals from the Ferris-Haggarty mine and possibly from background levels of metals in this highly mineralized area. On-going WYDEQ monitoring is focused on determining the extent of impairment and the level of natural metal concentrations. An Abandoned Mine Lands (AML) project is addressing the leachate from the mine portal, and has seen promising preliminary results. Acid mine drainage also affects the Roaring Fork Little Snake River within the Huston Park wilderness.



## GEOGRAPHIC AREAS

The area provides a full range of recreation opportunities and experiences and includes many private inholdings. The area north of Highway 70 is the most popular snowmobile play area of the Sierra Madres and includes several segments of the Continental Divide Trail. There are three small, developed campgrounds, currently with low use. There is some dispersed camping in the area, particularly during the big game hunting seasons and ATV use on existing travel ways is high. Fishing and hunting opportunities provide the majority of recreation visits to the area. Outfitter and guiding opportunities are also available.

Unique areas and features include the following:

- ♦ High elevation glacial lakes, Baby and Battle Lakes.
- ♦ Huston Park Wilderness Area (also in Encampment River GA).
- ♦ Several quartzite peak scenic views from the Battle Highway.
- ♦ Evidence of historic mining activity, including the Ferris-Haggarty Mine, Ferris-Haggarty Tramway, Rambler Ghost Town, Rambler Mine, and town sites of Battle, Dillon, and Copperton.
- ♦ Native Colorado River cutthroat trout are present in many streams.

**Management Area Prescription Allocation** – The management area prescriptions applied to the Battle Creek Geographic Area are listed in the following table.

Table 3-13. Battle Creek management area prescriptions.

#	MA Prescription	Acres	Percent of Total Area
1.13	Wilderness, Semi-primitive	8,206	31
1.33	Backcountry Recreation, Summer Nonmotorized with Winter Snowmobiling	1,483	6
3.31	Backcountry Recreation, Year-round Motorized	9,793	37
3.56	Aspen Maintenance and Enhancement	974	4
4.2	Scenery	2,447	9
5.13	Forest Products	75	<1
8.21	Developed Recreation	99	<1
	Nonfederal land	3,380	13
	Total	26,458	100

Source: GIS (ARC/Info), allocation and geographic area layers

### Geographic Area Desired Condition

Lodgepole pine and spruce/fir will continue to be the dominant cover types. Aspen in the western portion of the area will be maintained within historic ranges. Generally, forested patch sizes will be large with little evidence of management activities.

Natural processes and vegetation patterns will be apparent in these areas. Forested portions of these areas will be dominated by older late successional habitats with occasional increases of early successional habitats as a result of fire, insects, and disease.

Recreation opportunities will primarily be backcountry motorized north of the Battle Highway. Nonmotorized year-round opportunities are provided in the Huston Park Wilderness to the south. Access to private inholdings is maintained.

This area will continue to provide high quality scenic values on the Forest. The Battle Mountain Highway will be managed to maintain a high level of scenic quality.

The historic mining district will serve as the representative sample of historic mining in the Sierra Madre Range and will receive focused active heritage resource management, including preservation and interpretation of the Tramway and associated trail and preservation and documentation of the Battle Cemetery. A comprehensive research program conducted in partnership with academic institutions will provide a variety of public products and serve as mitigation for recent looting on the site.

### **Geographic Area Objectives, Strategies, Standards, and Guidelines**

#### **Objectives:**

1. Within ten years, develop and implement a management plan for the historic mining district.
2. Over the life of the Plan, improve water quality in impaired streams. (Haggerty Creek and West Fork Battle Creek).
3. Over the life of the Plan, work with cooperating agencies to reduce acid mine drainage and improve water quality in the Roaring Fork Little Snake River within and downstream of the Huston Park Wilderness.
4. Maintain or enhance Colorado River cutthroat trout habitat in tributaries north of Highway 70.

#### **Guideline:**

1. Adhere to agreements in the Memorandum of Agreement between the Forest Service and Natural Resources Conservation Service for the Hydrometeorological Data Collection Sites shown in the table below:

Table 3-14 Hydrometeorological data collection sites.

<b>Site Name</b>	<b>Station #</b>	<b>Elevation</b>	<b>Township</b>	<b>Range</b>	<b>Section</b>
Haskins Creek	07H01	8988	14N	86W	26

## Beaver Creek Geographic Area

This geographic area is 46,498 acres in size, 95% of which is in federal ownership. Lodgepole pine is the dominant vegetation type (60%), with grasses, forbs, and shrubs comprising 21%. Engelmann spruce and subalpine fir (5%) are relegated to the highest elevations on the eastern slope of Blackhall Mountain. The western and northern portions of the area are predominantly made up of unbroken forest. In the central, southern, and eastern portions of the area there is a mosaic of stringer forest and treeless sagebrush shrubland. A number of large parks are scattered across the area, including Jerry Park, Big Creek Park, and Holroyd Park. Within the forested area, 26% is considered late successional.

Most of the area is in vegetation/elevation zone preferred by nesting goshawks. The area has important elk calving areas and winter range, as well as winter range for deer. Hunting use is relatively high. There are several large dispersed camp sites that are popular with local hunters.

The majority of the streams are perennial, headwater streams that originate in and flow through montane environments. Most of the ponds were created by beaver activity. Streams, marshes, and ponds in the Beaver Creek geographic area provide vital habitat for fish (native and introduced) and amphibians, as well as a myriad of aquatic insects and aquatic plants. The introduced (non-native) fish species are brown trout, brook trout, and rainbow trout. Native fish species include creek chub, longnose sucker, white sucker, and longnose dace. Several amphibian species occur or have historical ranges located in the area. They include boreal toad, northern leopard frog, boreal chorus frog, and the tiger salamander.

Unique areas and features include the following:

- ♦ The presence of rare plants: Colorado tansy aster and clustered lady's slipper.
- ♦ Large parks including Jerry Park, Big Creek Park, and Holroyd Park.
- ♦ Unique stands of ponderosa pine and Douglas-fir, mixed in with aspen and lodgepole pine in the eastern part of the area.
- ♦ A large number of identified prehistoric sites in the open parks.

**Management Area Prescription Allocation** – The management area prescriptions applied to the Beaver Creek Geographic Area are listed in the following table.

Table 3-15. Beaver Creek management area prescriptions.

#	MA Prescription	Acres	Percent of Total Area
1.31	Backcountry Recreation, Year-round Nonmotorized	9,454	20
3.5	Forested Flora or Fauna Habitats, Limited Snowmobiling	2418	5
3.58	Crucial Deer and Elk Winter Range	10,619	23
5.15	Forest Products, Ecological Maintenance and Restoration Considering the Historic Range of Variability	21,756	47
	Nonfederal land	2,251	5
	Total	46,498	100

Source: GIS (ARC/Info), allocation and geographic area layers

### Geographic Area Desired Condition

Lodgepole pine will continue to be the dominant cover type, with increasing amounts of aspen in the western portion of the area. In areas allocated to management area prescription 5.15 (47%), a variety of successional stages will be present.

Natural processes and vegetation patterns will be apparent in these areas. Forested portions of these areas will be dominated by older late successional habitats with occasional increases of early successional habitats as a result of fire, insects, and disease.

The western half of the area will provide dispersed motorized recreation opportunities. The eastern portion will be primarily nonmotorized (20%).

Large blocks of mature lodgepole pine/aspen stands will be maintained to accommodate nesting goshawks. There will be sufficient escape/hiking cover to maintain quality big game hunting. Vegetation quality on winter range areas in the southeast will consist of high quality forage in a variety of seral stages.

### Geographic Area Objectives, Strategies, Standards, and Guidelines

Objectives:

1. Where other landowners are willing, enter into land exchanges/purchases to consolidate landownership, especially to enhance wildlife habitat and recreation opportunities.
2. Within ten years, effectively close non-system roads in backcountry areas.
3. Maintain or enhance fire-dependent species including aspen, ponderosa pine, and Douglas-fir.

## **G E O G R A P H I C   A R E A S**

### **Strategy:**

1. Identify prehistoric resources in the area. Initial inventory will be followed with appropriate baseline research and ensuing preservation plans and interpretive products.

### **Standards:**

1. Rehabilitate “raw” stream crossings (vehicle) during project implementation to reduce erosion and sedimentation
2. Manage the Big Creek Road (NFSR 498) for motorized and nonmotorized use.

## Encampment River Geographic Area

Vegetation in this 77,538-acre geographic area (95% of which is under federal ownership) is dominated by lodgepole pine forests (49%). Engelmann spruce and subalpine fir (30%) occur at the highest elevations on the eastern slope of the Continental Divide. The northern part of the area within the Encampment River Canyon has a few widely scattered relic stands of ponderosa pine and Douglas-fir, mixed in with aspen and lodgepole pine. The windswept ridges of this area have scattered limber pine. Within the forested area, 49% is considered late successional.

Approximately two-thirds of the GA is in the vegetation/elevation zone used by nesting goshawks, with many known nests. Elk calving and high use cow/calf summer range are located in the Damfino Creek/East Fork Encampment River areas. There are two bighorn sheep lambing grounds in the Encampment River canyon, one of which is on BLM lands. Some animals from this herd move westward to high-elevation summer range in the Huston Park Wilderness Area. Long-term research studies in the Coon Creek/East Fork area have documented pine marten use.

Both native fish and introduced trout occur in the area's reservoir and streams. The introduced (non-native) fish species are brown trout, brook trout, and rainbow trout. Native fish species include longnose sucker, white sucker, and longnose dace. Several amphibian species occur or have historic ranges located in the area. They include boreal toad, northern leopard frog, boreal chorus frog, and the tiger salamander.

There are two developed campgrounds and two developed picnic areas in the area, as well as one group picnic site. Dispersed campers, hikers, and other recreationists use the area. The Hog Park Reservoir is a destination point for fishing and boating and receives use from the Front Range of Colorado. A variety of recreational opportunities take place on or in proximity to the Encampment River, including kayaking, fly fishing, hiking, and dispersed camping. Green Mountain Falls is a popular hike and destination area. There are two snowmobile and cross-country ski trail parking areas that receive high use. Forest Service System road 550 is also a designated snowmobile route that continues into the trail system in Colorado. The Continental Divide National Scenic Trail passes through the western portion of this area.

The Encampment River geographic area contains several named streams and associated tributaries and one reservoir. The majority of the streams are perennial, headwater streams that originate in and flow through montane environments. Some of the tributaries are intermittent, although they too flow through montane environments. Ponds in the area are primarily due to beaver activity. Streams, marshes, and ponds provide vital habitats for fish (native and introduced) and amphibians, as well as myriad aquatic insects and aquatic plants.

## GEOGRAPHIC AREAS

Water resources have been developed for a variety of agricultural, recreational and municipal uses. Numerous agricultural ditches exist in the area including the Highline, Coon Creek and Billie Creek ditches. Hog Park Reservoir, Hog Park Creek and the Encampment River receive water from Cheyenne Board of Public Utilities trans-basin diversions in the North Fork Little Snake River, west of the continental divide.

Unique areas and features include the following:

- ◆ Continental Divide National Scenic Trail is located in the western portion of this GA.
- ◆ NFSR 550 is a designated snowmobile route that continues into the Colorado snowmobile trail system.
- ◆ Bighorn sheep lambing ground and year-round range.
- ◆ Several known populations of clustered lady's slipper.
- ◆ The Encampment River Wilderness Area, Huston Park Wilderness Area (also in Battle Creek GA).
- ◆ Huston Park Additions and Encampment River Additions Proposed Wilderness Areas.
- ◆ The Encampment River Proposed Wild River and Proposed Scenic River.
- ◆ The Blackhall Mountain Fire Lookout.
- ◆ The Sierra Madre Loop Tour (an interpretive auto tour).
- ◆ Evidence of historic logging and mining activities.
- ◆ Hog Park Reservoir.
- ◆ Battle Mountain Highway.
- ◆ North Fork Encampment River (14,026 acres of NFS lands) provides the principal source of municipal water supply for the Town of Encampment.

**Management Area Prescription Allocation** – The management area prescriptions applied to the Encampment River Geographic Area are listed in the following table.

Table 3-16. Encampment River management area prescriptions.

#	MA Prescription	Acres	Percent of Total Area
1.13	Wilderness, Semi-primitive	21,823	28
1.2	Recommended for Wilderness	2,981	4
1.31	Backcountry Recreation, Year-round Nonmotorized	7,503	10
1.33	Backcountry Recreation, Summer Nonmotorized with Winter Snowmobiling	4	<1
1.5	National River System – Wild Rivers, Designated and Eligible	2,830 (Inclusion)	3
3.31	Backcountry Recreation, Year-round Motorized	1,982	3

#	MA Prescription	Acres	Percent of Total Area
3.33	Backcountry Recreation, Summer Motorized with Winter Nonmotorized	1,134	1
3.4	National River System, Scenic Rivers	556	1
3.58	Crucial Deer and Elk Winter Range	1,339	2
4.2	Scenery	1,030	1
5.12	General Forest and Rangelands, Rangeland Vegetation Emphasis	220	<1
5.13	Forest Products	7	<1
5.15	Forest Products, Ecological Maintenance and Restoration Considering the Historic Range of Variability	33,982	44
5.41	Deer and Elk Winter Range	15	<1
8.21	Developed Recreation	1,093	1
8.6	Administrative Sites	12	<1
	Nonfederal land	3,856	5
	Total	77,538	100

Source: GIS (ARC/Info), allocation and geographic area layers

### Geographic Area Desired Condition

Lodgepole pine and spruce/fir will continue to be the dominant cover types. In areas allocated to Management Area 5.15 (44%), a variety of tree sizes and successional stages will be present. Forest stand density in the Hog Park Reservoir and North Fork Encampment River watersheds may be managed to maintain long-term water quality and quantity, while reducing the risk of catastrophic wildfire and insects and diseases.

Natural processes and vegetation patterns will be apparent in these areas. Forested portions of these areas will be dominated by older late successional habitats with occasional increases of early successional habitats as a result of fire, insects, and disease.

The Encampment River and Huston Park Wilderness Areas will continue to provide a variety of high quality wilderness experiences. Additions to these existing wilderness areas will enhance the overall wilderness experience.

Dispersed motorized recreation opportunities will be provided in the central and eastern portions of the area. Backcountry nonmotorized year-round recreation opportunities will be provided in the southern portion (10%) and in the two existing and proposed wilderness areas (32%).

The Encampment River will provide kayaking, fishing, and opportunities for viewing a wide variety of wildlife.



## GEOGRAPHIC AREAS

The North Fork Encampment River watershed will continue to be managed under multiple-use prescriptions that protect or improve the high quality and quantity of municipal water for the Town of Encampment.

Management of wilderness areas will include fire as a means of restoring big game habitat, especially bighorn sheep lambing grounds. Quality big game hunting will be maintained through reduction of road density and increasing security areas. Opportunities to improve migration corridors to high elevation summer range in Huston Park Wilderness Area may be explored.

The historic Tie Hack District will be formally managed and nominated to the National Register of Historic Places.

### Geographic Area Objectives, Strategies, Standards, and Guidelines

#### Objectives:

1. Where other landowners are willing, enter into land exchanges/purchases to consolidate landownership, especially to enhance wildlife habitat, municipal supply watershed protection and recreation opportunities.
2. Ensure multiple use management of the North Fork Encampment River watershed is compatible with protection of domestic water supply needs.
3. Maintain or enhance fire-dependent species including aspen, ponderosa pine, and Douglas-fir.
4. Maintain or enhance riparian restoration activities in Beaver Dam Park Creek watershed.

#### Standards:

1. Rehabilitate “raw” stream crossings (vehicle) to reduce erosion and sedimentation.
2. Manage the Blackhall Mountain Road (NFSR 409) for motorized and nonmotorized use.

#### Guidelines:

1. Consider bighorn sheep management needs when conducting vegetative treatments.
2. Adhere to agreements in the Memorandum of Agreement between the Forest Service and Natural Resources Conservation Service for the Hydrometeorological Data Collection Sites shown in the table below:

Table 3-17 Hydrometeorological data collection sites.

Site Name	Station #	Elevation	Township	Range	Section
Purgatory Gulch	06H18	8970	14N	83W	32
Webber Springs	06H09S	9290	14N	85W	26

Guidelines: Note: The following guidelines apply only to the North Fork Encampment River watershed portion of the Geographic Area, for protection of the Town of Encampment municipal supply watershed.

3. Emphasize water quality in special uses, minerals, grazing, recreation and other resource areas.
4. Coordinate with state public health officials to ensure municipal water quality will not be degraded by management activities.
5. Consider protection of municipal supply water when determining which best management practices apply.
6. Promptly restore disturbed areas contributing to water quality degradation.
7. Consider acquisition, by purchase or exchange, of nonfederal lands when:
  - i. The community does not have the capability to acquire the essential tract.
  - ii. The National Forest program will provide the best insurance against existing or potential uses that are incompatible with effective municipal supply watershed management.
8. Use Minimum Impact Suppression Tactics (MIST) during fire suppression activities in order to minimize impacts to water quality.
9. Consider protection of the municipal supply watershed and long-term forest conditions when determining which appropriate management response to employ.

## **Northeast Sierra Madre Geographic Area**

This 61,568-acre geographic area (94% federal ownership) is dominated by lodgepole pine forest (48%), interspersed with a mosaic of lodgepole/aspen and limber pine stringer forest and treeless sagebrush shrubland (16%). At mid-elevations, the lodgepole pine gives way to Engelmann spruce and subalpine fir (25%). Unbroken lodgepole pine and spruce/fir forests characterize the southwest part of the area. At the highest elevations along the Continental Divide, there is tundra vegetation and bare rock. Within the forested area, 38% is considered late successional.

Past glaciation in the area has created a few high-elevation lakes in the southern portion, including North and South Spring Lakes. The northern portion of the area contains a number of large parks, including Joe's Park and McLain Park. Drainages in the area are mostly small- to moderate-size headwater streams, both perennial and intermittent. The perennial streams experience substantial spring flows and low summer flows. Wetlands are abundant and widely distributed in this geographic area.

The vegetation/elevation zone preferred by nesting goshawks occupies a strip along the eastern front of the mountains and the northern half of this area, and there are many documented nest sites. The lower elevations in the area serve as transition range for elk, and low-elevation areas along the Forest boundary serve as elk calving areas. Elk migrate through this area on their way from summer to winter range, and moose use the abundant riparian habitat.

Streams in this geographic area vary in their capability to support recreational fisheries. Both native fish and introduced trout occur in the area's streams. The introduced (non-native) fish species are brown trout, brook trout, and rainbow trout. Native fish species include white sucker, Johnny darter, creek chub, longnose sucker, and longnose dace. Several amphibian species occur or have historic ranges located in the area. They include boreal toad, northern leopard frog, boreal chorus frog, and the tiger salamander.

Recreation use varies, with dispersed camping and big game hunting being most common. Archery hunting is very popular in this area, and outfitter/guide opportunities are available for both hunting and fishing. Snowmobile use on several designated routes is low to moderate, with most use coming from the local communities. Cross-country skiing is popular in the area, especially at the Bottle Creek Ski Trails. The Continental Divide National Scenic Trail passes through the western portion of this area. The Jack Creek Campground is a destination campground in this area of the Forest.

Unique areas and features include the following:

- ♦ Jack Creek Campground.
- ♦ Jack Creek.
- ♦ Jack Creek cabin rentals.
- ♦ Continental Divide National Scenic Trail found in the western portion of the GA.
- ♦ Tramway Trail Special Interest Area.
- ♦ Evidence of historic mining activities.

**Management Area Prescription Allocation** – The management area prescriptions applied to the Northeast Sierra Madre Geographic Area are listed in the following table.

Table 3-18. Northeast Sierra Madre management area prescriptions.

#	MA Prescription	Acres	Percent of Total Area
2.1	Special Interest Areas	1,050	1
3.31	Backcountry Recreation Year-round Motorized	8,757	14
3.33	Backcountry Recreation, Summer Motorized with Winter Nonmotorized	497	1
4.2	Scenery	526	1
5.12	General Forest and Rangelands, Rangeland Vegetation Emphasis	9,085	15
5.13	Forest Products	38,054	62
8.21	Developed Recreation	27	<1
8.6	Administrative Sites	59	<1
	Nonfederal land	3,513	6
	Total	61,568	100

Source: GIS (ARC/Info), allocation and geographic area layers

### Geographic Area Desired Condition

Lodgepole pine and spruce/fir will continue to be the dominant cover types, with increasing amounts of aspen in the lower elevations of the area. In areas allocated to Management Area 5.13 (62%), a variety of successional stages will be present.

Dispersed motorized recreation opportunities will dominate this area.

Blocks of suitable goshawk nesting habitat will be maintained. Quality riparian vegetation will be maintained to support increasing moose use. At lower elevations, there will be sufficient (quantity and quality) habitat in elk calving areas.

**Geographic Area Objectives, Strategies, Standards, and Guidelines**

**Objectives:**

1. Where other landowners are willing, enter into land exchanges/purchases to consolidate landownership, especially to enhance wildlife habitat and recreation opportunities.
2. Improve the winter parking facilities on State Highway 70 so that a quality experience is available for both motorized and nonmotorized winter recreationists.
3. Maintain or enhance aspen and Douglas-fir.

**Standard:**

1. Rehabilitate “raw” stream crossings (vehicle) to reduce erosion and sedimentation.

**Guideline:**

1. Adhere to agreements in the Memorandum of Agreement between the Forest Service and Natural Resources Conservation Service for the Hydrometeorological Data Collection Sites shown in the table below:

Table 3-19. Hydrometeorological data collection sites.

<b>Site Name</b>	<b>Station #</b>	<b>Elevation</b>	<b>Township</b>	<b>Range</b>	<b>Section</b>
Divide Peak	07H05S	8755	15N	87W	2
Old Battle	06H10S	9927	14N	58W	29

## North Savery Geographic Area

The North Savery Geographic Area comprises 30,390 acres, 99% in federal ownership. Lodgepole pine forests dominate the vegetation (53%). Aspen (14%) is concentrated at the lower elevations in the southern portion of the area. In the middle elevations, there is a transition from the lodgepole pine to forests dominated by Engelmann spruce and subalpine fir (15%). Within the forested area, 49% is considered late successional. The area is characterized by unbroken forest, except for the northern portion where there is a mosaic of lodgepole pine/aspen and limber pine stringer forest and treeless sagebrush shrubland. There are unique relic stands of Douglas-fir and ponderosa pine, along with narrowleaf cottonwood and blue spruce in Deep Creek canyon.

The majority of the streams are perennial, headwater streams with some intermittent tributaries. Ponds are generally the result of beaver activity. The area's streams, lakes, and ponds provide vital habitats for fish (native and introduced) and amphibians, as well as myriad aquatic insects and aquatic plants. The High Savery Reservoir is located approximately 10 miles downstream of the Forest on Savery Creek.

Both native fish and introduced trout occur in the lakes and streams. The introduced (non-native) fish species are brown trout, brook trout, and rainbow trout. Native fish species include Colorado River cutthroat trout, mountain whitefish, roundtail chub, bluehead sucker, creek chub, mottled sculpin, mountain sucker, flannelmouth sucker, white sucker, and Bonneville redbreast shiner. Several amphibian species occur or have historic ranges located in the area. They include boreal toad, northern leopard frog, boreal chorus frog, and the tiger salamander.

Three-fourths of the area is in a vegetation/elevation zone preferred by nesting goshawks, and there are many known nests. The area provides a major elk calving area and transition range. There is also a major elk migration corridor to winter range areas.

Dispersed camping is very popular in this area. The Singer Peak area offers solitude and visual recreation experiences. Big game hunting is very popular in this area both during bow and rifle seasons, and recreational hunting experiences can be diminished by the number of campers and motorized vehicles users. The Continental Divide National Scenic Trail crosses a portion of this area. The use during winter is low.

Unique areas and features include the following:

- ◆ Two known populations of clustered lady's slipper.
- ◆ Unique relic stands of Douglas-fir and ponderosa pine in Deep Creek canyon.

**Management Area Prescription Allocation** – The management area prescriptions applied to the North Savery Geographic Area are listed in the following table.

Table 3-20. North Savery management area prescriptions.

#	MA Prescription	Acres	Percent of Total Area
3.31	Backcountry Recreation, Year-round Motorized	10,602	35
3.5	Forested Flora and Fauna Habitats, Limited Snowmobiling	5,876	19
5.12	General Forest and Rangelands, Rangeland Vegetation Emphasis	1,741	6
5.13	Forest Products	8,010	26
5.15	Forest Products, Ecological Maintenance and Restoration Considering the Historic Range of Variability	3,875	13
	Nonfederal land	285	1
	Total	30,390	100

Source: GIS (ARC/Info), allocation and geographic area layers

### Geographic Area Desired Condition

Lodgepole pine and spruce/fir will continue to be the dominant cover types, with increasing amounts of aspen in the southern and western portions of the area. In areas allocated to management area prescription 5.15 (13%), a variety of successional stages will be present. Forest stand density in the East Fork Savery watershed may be managed to maintain long-term water quality and quantity, while reducing the risk of catastrophic wildfire and insects and diseases.

Natural processes and vegetation patterns will be apparent in these areas. Forested portions of these areas will be dominated by older late successional habitats with occasional increases of early successional habitats as a result of fire, insects, and disease.

Recreation opportunities include a mix of motorized and nonmotorized with winter motorized opportunities. The Singer Peak area will provide backcountry year-round motorized.

Sufficient large blocks of late successional lodgepole pine and aspen stands will exist in order to accommodate nesting goshawks and maintain quality calving/ fawning, migration, wintering, and escape habitat for big game.

**Geographic Area Objectives, Strategies, Standards, and Guidelines**

**Objectives:**

1. Maintain and enhance fire-dependent species (aspen, ponderosa pine, Gambel oak, and Douglas-fir) and unique riparian species (blue spruce and narrowleaf cottonwood).
2. Maintain or enhance Colorado River cutthroat trout habitat.

**Strategy:**

1. Identify opportunities to develop motorized trail systems during individual site-specific analyses that occur in this geographic area.



## **South Savery Geographic Area**

This 76,479-acre geographic area (88% federal ownership) is dominated by aspen forests (38%); it has the highest concentration of aspen on the Forest. Shrubs, grasses, and forbs make up 36% of the area's vegetation. Lodgepole pine (12%) is relegated to northern and southeastern parts of the area. Sandstone Canyon, Battle Creek, and Battle Mountain have unique relic stands of Douglas-fir, ponderosa pine, and Gambel oak. The lower stretches of Battle Creek and its tributaries contain narrowleaf cottonwood and scattered blue spruce. Within the forested area, 23% is considered late successional.

This area primarily has perennial, headwater streams that originate in and flow through montane environments. Ponds in the area are generally the result of beaver activity. The area's streams and ponds provide vital habitats for fish (native and introduced) and amphibians, as well as myriad aquatic insects and aquatic plants. Few streams are easily accessible because of the remote location and lack of access. One stream has a fish barrier to prevent exotic trout species from displacing pure Colorado River cutthroat trout.

Both native fish and introduced trout occur in the area's streams. Introduced (non-native) trout species include brown trout, brook trout, and rainbow trout. Native fish species include Colorado River cutthroat trout, creek chub, white sucker, longnose sucker, speckled dace, mountain sucker, longnose sucker, Bonneville redbreasted sunfish, and mottled sculpin. Several amphibian species occur or have historical ranges in the area. They include boreal toad, northern leopard frog, boreal chorus frog, and the tiger salamander.

The entire area occurs in the vegetation/elevation zone preferred by nesting goshawks, and there are several documented nest sites. There is Columbia sharp-tailed grouse habitat in and adjacent to the area, and there are several known leks. This geographic area occurs on a major big game migration route to winter range areas in the desert to the west. Extensive shrub/grass/aspen communities provide transition and winter range, as well as calving and fawning areas.

Dispersed camping and big game hunting comprise most of the recreational use and the area also includes several snowmobile trails. Viewing wildlife and scenery are very popular day use activities, along with picnicking and fishing. Highway 70 provides interpretive sites and opportunities for viewing scenery. Sandstone Work Center plays an important role as an active work center and provides visitor information. One small campground is located on Battle Creek. The area also offers a high degree of solitude.

Unique areas and features include the following:

- ♦ Highest concentration of aspen on the Forest.
- ♦ Savery Stock Driveway and other historic sheep driveways.
- ♦ Aspen art.
- ♦ Sandstone Work Center.
- ♦ Columbian sharp-tailed grouse.
- ♦ Unique relic stands of Douglas-fir, ponderosa pine, and Gambel oak in Sandstone Canyon, Battle Creek, and on Battle Mountain.
- ♦ Battle Mountain Research Natural Area.
- ♦ Battle Mountain Highway.

**Management Area Prescription Allocation** – The management area prescriptions applied to the South Savery Geographic Area are listed in the following table.

Table 3-21. South Savery management area prescriptions.

#	MA Prescription	Acres	Percent of Total Area
2.2	Recommended for Wilderness	1,204	2
3.31	Backcountry Recreation, Year-round Motorized	2,667	3
3.5	Forested Flora and Fauna Habitats, Limited Snowmobiling	10,083	13
3.56	Aspen Maintenance and Enhancement	23,887	31
3.58	Crucial Deer and Elk Winter Range	10,558	14
4.2	Scenery	3,044	4
5.12	General Forest and Rangelands, Rangeland Vegetation Emphasis	6,663	9
5.13	Forest Products	7,720	10
5.15	Forest Products, Ecological Maintenance and Restoration Considering the Historic Range of Variability	1,653	2
8.21	Developed Recreation	41	<1
8.6	Administrative Sites	91	<1
	Nonfederal land	8,868	12
	Total	76,479	100

Source: GIS (ARC/Info), allocation and geographic area layers

### Geographic Area Desired Condition

Aspen will continue to be the dominant cover type; its current distribution will generally be maintained or increased. In areas allocated to Management Area 5.13 (10%) in the central portion and Management Area 5.15 (2%) in the northwestern portion, a variety of tree sizes and successional stages will be present.

Natural processes and vegetation patterns will be apparent in these areas. Forested portions of these areas will be dominated by older late successional habitats with occasional increases of early successional habitats as a result of fire, insects, and disease.

Backcountry nonmotorized year round recreation opportunities will occur on 3% of the area. Dispersed motorized recreation opportunities will dominate the area although seasonal restrictions will occur on 14% of the area in big game winter range.

The Battle Mountain Research Natural Area will provide valuable habitat for Columbian sharp-tailed grouse, northern goshawk, and loggerhead shrike.

Good quality big game winter range will continue to dominate the western slopes of this area. Shrubland vegetation in this area will include a mix of seral stages.

Scenic quality will be maintained along Battle Mountain Highway.

### Geographic Area Objectives, Strategies, Standards, and Guidelines

#### Objectives:

1. Where other landowners are willing, enter into land exchanges/purchases to consolidate landownership, especially to enhance wildlife habitat and recreation opportunities.
2. Develop a managed cross-country ski trail system and develop parking infrastructure for winter recreation at the west side State Highway 70 winter road closure location.
3. Maintain and enhance fire-dependent species such as aspen, ponderosa pine, Gambel oak, serviceberry, and Douglas-fir and unique riparian species, including narrowleaf cottonwood and blue spruce.
4. Enhance the quality of nesting and brood-rearing habitat for Columbian sharp-tailed grouse.

#### Standard:

1. Allow winter snowmobile access through Little Sandstone Creek on designated routes for access to high elevation portions of the forest.

Guideline:

1. Adhere to agreements in the Memorandum of Agreement between the Forest Service and Natural Resources Conservation Service for the Hydrometeorological Data Collection Sites shown in the table below:

Table 3-22 Hydrometeorological data collection sites.

Site Name	Station #	Elevation	Township	Range	Section
Battle Mountain	07H04S	7541	13N	88W	35
Sandstone R.S.	07H03S	8169	13N	87W	10

## Upper Little Snake River Geographic Area

The dominant vegetation types in this 43,286-acre geographic area are Engelmann spruce/subalpine fir (39%) and aspen (29%). Engelmann spruce and subalpine fir dominate the higher elevations in the northern part of the area. Extensive aspen forest become mixed with lodgepole pine at middle elevations. Grasses, shrubs and forbs make up (7%). Within the forested area, 52% is considered late successional. Ninety-two percent of the area is in federal ownership.

This area contains an important Colorado River cutthroat trout fishery in the North Fork, West Branch, and Roaring Fork of the Little Snake River. These tributaries also contain mottled sculpin, brook trout, rainbow trout, and mountain whitefish. Cooperative efforts with the Wyoming Game and Fish Department to actively conserve populations of Colorado River cutthroat trout in this GA are ongoing. The boreal chorus frog is the most abundant and widely distributed amphibian in the area. There may be populations of tiger salamanders as well.

Forty-five percent of the geographic area is in late successional habitat. The habitat is distributed among 40 patches, with an average patch size of 415 acres.

Water development is a large influence in this GA. There are 3 private diversion ditches and the Cheyenne Stage I and II Transbasin Diversion and transport structures. Past breaches in the Stage II pipeline resulted in large sediment deliveries to some streams in the area. Municipal water supply for Dixon and Baggs is obtained from the Little Snake River 20-30 miles downstream of the Forest.

Unique areas and features include the following:

- ♦ The Cheyenne Stage I and II Transbasin Water Diversion Project in the east-central portion of the GA.
- ♦ Huston Park Wilderness Area (also in Encampment River and Battle Creek GAs).
- ♦ Huston Park Additions Proposed Wilderness Area (also in the Encampment River GA).
- ♦ Evidence of historic mining activity.
- ♦ Potential for the largest contiguous habitat complex for Colorado River cutthroat trout meta-population.

**Management Area Prescription Allocation** – The management area prescriptions applied to the Upper Little Snake River Geographic Area are listed in the following table.

Table 3-23. Upper Little Snake River management area prescriptions.

#	MA Prescription	Acres	Percent of Total Area
1.13	Wilderness, Semi-primitive	11,094	26
1.2	Recommended for Wilderness	7,452	17
3.5	Forested Flora and Fauna Habitats, Limited Snowmobiling	12,222	28
3.56	Aspen Maintenance and Enhancement	5,417	13
5.12	General Forest and Rangelands, Rangeland Vegetation Emphasis	963	2
5.15	Forest Products, Ecological Maintenance and Restoration Considering the Historic Range of Variability	2,354	5
	Nonfederal land	3,785	9
	Total	43,286	100

Source: GIS (ARC/Info), allocation and geographic area layers

### Geographic Area Desired Condition

Spruce/fir and aspen will continue to be the dominant cover types. In areas allocated to Management Area 5.15 (10%) in the southeastern portion, a variety of successional stages will be present.

Natural processes and vegetation patterns will be apparent in these areas. Forested portions of these areas will be dominated by older late successional habitats with occasional increases of early successional habitats as a result of fire, insects, and disease.

Dispersed motorized recreation opportunities will occur in the southern portion of the area. The Huston Park Wilderness area and recommended additions will provide semi-primitive nonmotorized recreation opportunities on 43% of the area.

Key Colorado River cutthroat trout habitat will be maintained or enhanced.

**Geographic Area Objectives, Strategies, Standards, and Guidelines**

**Objectives:**

1. Where other landowners are willing, enter into land exchanges/purchases to consolidate landownership, especially to enhance wildlife habitat and recreation opportunities.
2. Designate winter snowmobile trails in this geographic area to provide better opportunities for winter recreation.
3. Maintain and enhance fire-dependent species such as aspen and Gambel oak.
4. Maintain or enhance Colorado River cutthroat trout habitat.

**Guideline:**

1. Adhere to agreements in the Memorandum of Agreement between the Forest Service and Natural Resources Conservation Service for the Hydrometeorological Data Collection Sites shown in the table below:

Table 3-24 Hydrometeorological data collection sites.

<b>Site Name</b>	<b>Station #</b>	<b>Elevation</b>	<b>Township</b>	<b>Range</b>	<b>Section</b>
Whiskey Park	06H22S	9030	12N	85W	13
Little Snake River	N/A*	8860	13N	85W	27

\* Site number not available at this time.

## **Geographic Areas in the Snowy Range Mountains**

Barrett  
Bow River  
Brush Creek  
French Creek  
Lower Douglas Creek  
Middle Fork  
North Fork  
Pass Creek  
Pennock Mountain  
Platte River  
Sheep Mountain  
Snowy Range, Eastern Front  
Upper Douglas Creek



## Barrett Geographic Area

This 12,194-acre area (98% federal ownership) is dominated by lodgepole pine forests (59%), becoming mixed with aspen towards the lower elevations. Aspen makes up 10% of the vegetation in this GA. There is very little Engelmann spruce and subalpine fir (2%) in the vicinity. The eastern portions of the area are predominantly made up of unbroken forest. The western portions of the area contain a mosaic of stringer forest and treeless sagebrush shrubland. The stringer forests of this area have unique relic stands of ponderosa pine and Douglas-fir, mixed in with aspen and lodgepole pine. The rare plant, clustered lady's slipper, is present in the southeastern part. Grass, forbs, and shrubs make up 25% of the vegetation. Twenty-five percent of the forested area is considered late successional.

This area provides a variety of big game habitat values, including the following: elk calving area, deer and elk transition range, crucial elk winter range, major deer and elk migration corridors, and a corridor used by bighorn sheep to access high elevation summer range. It receives a high level of use by wintering moose and has a high density of black bears. There are several known goshawk nests.

There are eight streams in the area, including both perennial and intermittent stream types. Most of the streams experience very low summer flows and many cannot support a viable trout fishery, although they do provide spawning habitat for fish and support aquatic insects, aquatic plants, and native, non-trout fish species. Two streams, French Creek and North French Creek, support fisheries of statewide importance. Several amphibian species occur or have historic ranges located in the area. They include the boreal toad, wood frog, northern leopard frog, boreal chorus frog, and tiger salamander.

The ROS for this area is primarily roaded from past management activities. There is a small, developed campground that receives moderate use and several snowmobile trails. Dispersed camping and day use are generally low, but increase during hunting season.

Unique areas and features include the following:

- ♦ Known population of clustered lady's slipper.
- ♦ Unique, relic stands of ponderosa pine and Douglas-fir.
- ♦ Good scenic variety, including sagebrush ridges, timbered canyons, rock outcrops, aspen stands, streams, and wildlife.
- ♦ Savage Run Wilderness Area (also in Platte River GA).

**Management Area Prescription Allocation** – The management area prescriptions applied to the Barrett Geographic Area are listed in the following table.

Table 3-25. Barrett management area prescriptions.

#	MA Prescription	Acres	Percent of Total Area
1.13	Wilderness, Semi-primitive	13	<1
3.58	Crucial Deer and Elk Winter Range	1,690	14
5.13	Forest Products	9,217	76
5.15	Forest Products, Ecological Maintenance and Restoration Considering the Historic Range of Variability	954	8
8.21	Developed Recreation	28	<1
	Nonfederal land	293	2
	Total	12,194	100

Source: GIS (ARC/Info), allocation and geographic area layers

### Geographic Area Desired Condition

Lodgepole pine will continue to be the dominant cover type, with minor amounts of aspen, spruce/fir and ponderosa pine. In areas allocated to Management Area 5.13 (76%) and Management Area 5.15 (8%), a variety of tree sizes and successional stages will be present.

Sufficient large blocks of late successional lodgepole pine and aspen stands will exist in order to accommodate nesting goshawks and maintain quality calving/fawning, migration, wintering, and escape habitat for big game.

Dispersed motorized recreation opportunities will dominate this area. Primitive motorized experience will be maintained; however, unneeded roads will be closed in order to improve the hunting experience and increase the effectiveness of the habitat.

### Geographic Area Objectives, Strategies, Standards, and Guidelines

Objectives:

1. Maintain and enhance fire-dependent species, including aspen, ponderosa pine and Douglas-fir.
2. Manage recreational activities on NFS and adjacent BLM lands cooperatively with the BLM.

## **G E O G R A P H I C   A R E A S**

### Standards:

1. Manage domestic sheep to provide adequate and effective separation from bighorn sheep, avoiding direct contact between the two.
2. Rehabilitate “raw” stream crossings (vehicle) to reduce erosion and sedimentation.

### Guideline:

1. Consider bighorn sheep management needs when conducting vegetative treatments.

## Bow River Geographic Area

Lodgepole pine (37%) and Engelmann spruce/subalpine fir (39%) are the dominant vegetation types in this 54,276-acre area, 97% of which is in federal ownership. At mid-elevations the vegetation changes from lodgepole pine to Engelmann spruce and subalpine fir. Grasses, forbs, and shrubs make up 18% of the vegetation. Within the forested area, 36% is considered late successional. Past fires and snow deposition at the higher elevations have created unique alpine meadows and spruce ribbon forests. The highest elevations on the north slope of Medicine Bow Peak are treeless tundra vegetation and rock.

Past glaciation in the area created a number of high-elevation lakes in the southern portion, including North and South Banner, Quealy, Heart, Vagner, North Gap, Reservoir, Cutthroat, Arrowhead, Deep, and Mutt and Jeff Lakes, along with thousands of kettle ponds scattered across the central and northern parts.

The following streams are located in the area: Medicine Bow River, East Fork Medicine Bow River, Turpin Creek, Harden Creek, North Brush Creek, Wagonhound Creek, and East Fork Wagonhound Creek. There is one storage reservoir, Turpin Reservoir. Both native fish and introduced trout occur in the lakes and streams. The introduced (non-native) fish species are brown trout, brook trout, cutthroat trout, splake, and rainbow trout. Native fish species include Johnny darter, Iowa darter, creek chub, sand shiner, bigmouth shiner, emerald shiner, hornyhead chub, fathead minnow, white sucker, longnose sucker, and longnose dace. Several amphibian species occur or have historic ranges located in the area. They include the boreal toad, northern leopard frog, boreal chorus frog, and the tiger salamander.

Water resources have been developed for a variety of agricultural and recreational uses. Numerous agricultural ditches exist in the area including the diversions on Turpin Creek, Medicine Bow River and Carlson Creek. Sand Lake and Turpin Reservoirs provide water storage for agricultural use off Forest and are also used for recreational purposes.

The northern half of the area occurs in the vegetation/elevation zone preferred by nesting goshawks, and there are many known nests. There are several important big game habitat considerations, including elk calving area, cow/calf summer range, a major migration corridor to winter range, and crucial elk winter range.

The dominant ROS setting is roaded modified, with some roaded natural, semi-primitive motorized and semi-primitive nonmotorized settings. This area receives high dispersed camping along all road corridors and includes one developed campground on Bow River. There are many fishing opportunities, as well as opportunities for viewing wildlife and driving for pleasure. Big game hunting accounts for high recreation use in September and October.

## GEOGRAPHIC AREAS

Unique areas and features include the following:

- ♦ White Rock Canyon Special Interest Area (also in Snowy Range Eastern Front GA).
- ♦ Kettle Ponds Special Interest Area.
- ♦ Ribbon Forest Special Interest Area (also in Snowy Range Eastern Front GA).
- ♦ Medicine Bow Peak Special Interest Area (also in Brush Creek, French Creek, and North Fork GAs).
- ♦ Browns Peak Research Natural Area.
- ♦ Glacial lakes and kettle ponds.
- ♦ Bow River Campground.
- ♦ Bow River Cabin Rental.
- ♦ Turpin Creek Tie Camp and Splash Dam.
- ♦ Sand Lake.

**Management Area Prescription Allocation** – The management area prescriptions applied to the Bow River Geographic Area are listed in the following table.

Table 3-26. Bow River management area prescriptions.

#	MA Prescription	Acres	Percent of Total Area
1.33	Backcountry Recreation, Summer Nonmotorized with Winter Snowmobiling	9,151	17
2.1	Special Interest Areas	6,480	12
2.2	Research Natural Areas	472	1
3.31	Backcountry Recreation, Year-round Motorized	8,360	15
3.58	Crucial Deer and Elk Winter Range	373	1
5.15	Forest Products, Ecological Maintenance and Restoration Considering the Historic Range of Variability	25,989	48
5.41	Deer and Elk Winter Range	1,151	3
8.21	Developed Recreation	40	<1
8.6	Administrative Sites	98	<1
	Nonfederal land	1,862	3
	Total	54,276	100

Source: GIS (ARC/Info), allocation and geographic area layers

### **Geographic Area Desired Condition**

Lodgepole pine and spruce/fir will continue to be the dominant cover types. In areas allocated to Management Area 5.13 (11%) in the central portion and Management Area 5.15 (37%) in the northern portion, a variety of tree sizes and successional stages will be present.

Evidence of 1950s and 1960s era strip clearcuts will still be visible, but active management will continue to rehabilitate these areas to meet scenic integrity objectives.

Natural processes and vegetation patterns will be apparent in these areas. Forested portions of this area will be dominated by older late successional habitats with occasional increases of early successional habitats as a result of fire, insects, and disease.

Dispersed motorized recreation opportunities will dominate the central and northern portion of the area. The southern portion will include backcountry motorized year round (15%) and nonmotorized with winter motorized (17%). The southern portion of this area will include high levels of snowmobile use.

Large blocks of habitat (especially in the northern and central parts) will be managed to provide potential nesting areas for goshawks, quality elk calving areas, crucial winter range, and transition range.

Relic lakes are stocked to supplement natural reproduction.

The Kettle Ponds, White Rock Canyon and Ribbon Forest SIAs will provide unique habitats for interpretation and research. The Browns peak Research Natural Area will contribute important high alpine habitat to the R2 Regional Research Natural Area network.

### **Geographic Area Objectives, Strategies, Standards, and Guidelines**

#### **Objectives:**

1. Where other landowners are willing, enter into land exchanges/purchases to consolidate landownership, especially to enhance wildlife habitat and recreation opportunities.
2. Maintain or enhance fire-dependent species such as aspen, ponderosa pine, and Douglas-fir.

#### **Strategies:**

1. Provide interpretation of the Turpin Creek Tie Camp and Splash Dam.
2. Develop conservation preservation plans and interpretive products about the pre-1900 logging camp properties.

## GEOGRAPHIC AREAS

Standard:

1. Rehabilitate “raw” stream crossings (vehicle) to reduce erosion and sedimentation.

Guidelines:

1. Manage domestic sheep to provide adequate and effective separation from bighorn sheep, avoiding direct contact between the two.
2. Consider bighorn sheep management needs when conducting vegetative treatments.
3. Adhere to agreements in the Memorandum of Agreement between the Forest Service and Natural Resources Conservation Service for the Hydrometeorological Data Collection Sites shown in the table below:

Table 3-27 Hydrometeorological data collection sites.

Site Name	Station #	Elevation	Township	Range	Section
Moss Lake	06H16	9967	17N	80W	34

### Brush Creek Geographic Area

This 40,734-acre area (94% federal ownership) is dominated by Engelmann spruce/subalpine fir (42%) and lodgepole pine (40%). At the middle elevations on the eastern slopes of Kennaday Peak and western slopes of Medicine Bow Peak, lodgepole pine gives way to Engelmann spruce and subalpine fir. The highest elevations on the southwestern slope of Medicine Bow Peak are treeless, with tundra vegetation and rock. Aspen (2%) occurs in the lower elevations, along with relic stands of ponderosa pine, blue spruce, and Douglas-fir. The lower stretches of North and South Brush Creek contain narrowleaf cottonwood- and willow-dominated riparian areas. Within the forested area, 43% is considered late successional.

Past glaciation of the area has created a number of high-elevation lakes in the eastern and northeastern portions, including Campbell, Dipper, North and South Twin, Arrastre, Phantom, Stamp Mill, and Sucker Lakes, along with hundreds of kettle ponds in the vicinity of Harden Creek. There are a number of large parks, including Ryan, Lincoln, Mullison, Fish Creek, and Cecil Parks.

The majority of the streams are perennial, headwater streams that originate in and flow through montane environments. The lakes and some ponds are glacial relics, although many of the ponds are due to beaver activity. Lakes and ponds provide vital habitats for fish (introduced) and amphibians, as well as myriad aquatic insects and aquatic plants. The introduced (non-native) fish species are trout, brown trout, brook trout, cutthroat trout, splake, and rainbow trout. Native fish species include white sucker, longnose sucker, and longnose dace. Several amphibian species occur or have historic ranges located in the area. They include the boreal toad, northern leopard frog, boreal chorus frog, and the tiger salamander.

The western half of the area is in the vegetation/elevation zone preferred by nesting goshawks, with many known nests. There is also an elk calving area and a major migration route to big game winter range. The largest concentration of moose on the District occurs in this area.

The area provides a full range of recreation opportunities and experiences, from semi-primitive nonmotorized to a rural setting, with the roaded modified setting being most common. There are three developed campgrounds that receive moderate use; the Brush Creek Visitor Information Center receives high use, as do several snowmobile and ski trails. Dispersed camping is very popular, particularly during hunting season.



## GEOGRAPHIC AREAS

Unique areas and features include the following:

- ♦ High-elevation glacial lakes and kettle ponds.
- ♦ Medicine Bow Peak Special Interest Area (also in Bow River, French Creek and North Fork GAs).
- ♦ High-elevation, spruce/fir ribbon forests and Krumholtz vegetation.
- ♦ The Snowy Range Scenic Byway.
- ♦ Brush Creek Work Center and Visitor Information Center.

**Management Area Prescription Allocation** – The management area prescriptions applied to the Brush Creek Geographic Area are listed in the following table.

Table 3-28. Brush Creek management area prescriptions.

#	MA Prescription	Acres	Percent of Total Area
1.33	Backcountry Recreation, Summer Nonmotorized with Winter Snowmobiling	1,477	4
2.1	Special Interest Areas	120	<1
3.31	Backcountry Recreation, Year-round Motorized	2,336	6
3.33	Backcountry Recreation, Summer Motorized with Winter Nonmotorized	1,956	5
4.2	Scenery	3,257	8
5.13	Forest Products	3,879	10
5.15	Forest Products, Ecological Maintenance and Restoration Considering the Historic Range of Variability	24,611	60
8.21	Developed Recreation	199	<1
8.6	Administrative Sites	217	<1
	Nonfederal land	2,680	7
	Total	40,734	100

Source: GIS (ARC/Info), allocation and geographic area layers

### Geographic Area Desired Condition

Lodgepole pine and spruce/fir will continue to be the dominant cover types, with minor amounts of aspen in the west, and moderate amounts of spruce/fir in the east. In areas allocated to Management Area 5.13 (15%) in the southern portion, and Management Area 5.15 (60%) in the northern portion, a variety of successional stages will be present.

Evidence of 1950s and 1960s era strip clearcuts will still be visible, but active management will continue to rehabilitate these areas to meet scenic integrity objectives.

Cross-country skiing opportunities are emphasized on (5%) of the area in the southwest portion.

Natural processes and vegetation patterns will be apparent in these areas. Forested portions of this area will be dominated by older late successional habitats with occasional increases of early successional habitats as a result of fire, insects, and disease.

Dispersed motorized recreation opportunities will dominate this area. The eastern portion will include backcountry summer motorized and winter nonmotorized opportunities (5%). These areas will also include high levels of snowmobile use.

Large blocks of mature lodgepole pine/aspen habitat suitable for nesting goshawks will be maintained. The area will be managed for vegetative diversity, with emphasis on maintaining or creating quality habitat on elk calving areas and cow/calf summer range.

Scenic quality will be maintained along the Snowy Range Highway. Key historic sites include the Headquarters Park Site (historic grazing), Ryan Park Camp (CCC and WW II POW Camp), and the Brush Creek Visitor Center (Civilian Conservation Corps, Forest Service history, general interpretive services).

### **Geographic Area Objectives, Strategies, Standards, and Guidelines**

#### **Objectives:**

1. Where other landowners are willing, enter into land exchanges/purchases to consolidate landownership, especially to enhance wildlife habitat and recreation opportunities.
2. Maintain and enhance fire-dependent species (aspen and Douglas-fir) and unique riparian species (narrowleaf cottonwood and blue spruce)

#### **Strategies:**

1. Develop infrastructure at snowmobile and cross-country skiing trailheads that provides for a quality recreation experience.
2. Provide amphitheatre facilities in the area to accommodate interpretive programs.

#### **Standard:**

1. Protect identified boreal toad breeding sites.

## GEOGRAPHIC AREAS

### Guidelines:

1. Manage domestic sheep to provide adequate and effective separation from bighorn sheep, avoiding direct contact between the two.
2. Consider bighorn sheep management needs when conducting vegetative treatments.
3. Adhere to agreements in the Memorandum of Agreement between the Forest Service and Natural Resources Conservation Service for the Hydrometeorological Data Collection Sites shown in the table below:

Table 3-29 Hydrometeorological data collection sites.

Site Name	Station #	Elevation	Township	Range	Section
North Barrett Creek	06H05	9477	16N	80W	30
Ryan Park	06H06	8402	16N	81W	33
South Brush Creek	06H19S	8567	16N	81W	28

## French Creek Geographic Area

This geographic area comprises approximately 34,873 acres and is all National Forest System land. The vegetation is evenly split between lodgepole pine (39%) at the lower elevations and Engelmann spruce and subalpine fir (41%) at the middle to higher elevations. The highest elevations on the southwestern slope of Medicine Bow Peak and western slopes of Libby Flats are treeless tundra vegetation and rock. French Creek Canyon has a mixture of stringer forest, sagebrush shrubland, and rock outcrops below its north rim, as well as the bulk of the aspen in the area. Relic stands of ponderosa pine and Douglas-fir also occur in the canyon. The riparian areas in the lower stretches of French Creek are dominated by willow, narrowleaf cottonwood, and blue spruce. Within the forested area, 42% is considered late successional.

Past glaciation of the area has created a number of high-elevation lakes in the northeastern portion of the area, including Silver, Marie, Lookout, and Mirror Lakes. The glaciers also formed a number of unique, long, narrow rock fields in the Middle French Creek and French Canyon areas. The majority of the streams are perennial, headwater streams, with some intermittent tributaries. Lakes and some ponds in the area are glacial relics, although many of the ponds are due to beaver activity.

Many of the streams and lakes in the area are important recreational fisheries that are easily accessible because of an extensive road system. Both native fish and introduced trout are in the area's lakes and streams. The introduced (non-native) fish species are brown trout, brook trout, splake, and rainbow trout. Native fish species include white sucker, longnose sucker, and longnose dace. Several amphibian species occur or have historic ranges located in the area. They include boreal toad, wood frog, northern leopard frog, boreal chorus frog, and the tiger salamander.

The western third of the area is in the vegetation/elevation zone used by nesting goshawks, and there are several documented nest sites. South-facing slopes and associated rock outcrop areas provide habitat for bighorn sheep. There is potential for development of a migration corridor up South French Creek Canyon to high-elevation summer range. Some animals, primarily rams and dry ewes, occasionally use this corridor now. Lower elevations in the area contain elk calving areas and provide transition range along major deer and elk migration corridors. Moose also frequent riparian and upland areas.

This area is heavily used in the summer by all types of recreationists. Some of the most popular activities are hiking, viewing scenery and wildlife, fishing, and photography. Dispersed camping is very popular. Both outfitting/guiding and individual hunting use are very high. Winter snowmobile use is very high; cross-country skiing use is low due to the area's remoteness. Developed recreation sites include Mirror Lake Picnic Ground, West Lake Marie Rest Area, and Silver Lake Campground.

## GEOGRAPHIC AREAS

Unique areas and features include the following:

- ♦ French Creek Canyon.
- ♦ Medicine Bow Peak Special Interest Area (also in Bow River, Brush Creek, and North Fork GAs).
- ♦ Glacial lakes.
- ♦ Snowy Range Scenic Byway.
- ♦ Clustered lady's slipper habitat.

**Management Area Prescription Allocation** – The management area prescriptions applied to the French Creek Geographic Area are listed in the following table.

Table 3-30. French Creek management area prescriptions.

#	MA Prescription	Acres	Percent of Total Area
1.33	Backcountry Recreation, Summer Nonmotorized with Winter Snowmobiling	7,392	21
2.1	Special Interest Areas	538	2
3.31	Backcountry Recreation, Year-round Motorized	441	1
4.2	Scenery	2,067	6
5.13	Forest Products	7,044	20
5.15	Forest Products, Ecological Maintenance and Restoration Considering the Historic Range of Variability	16,972	49
8.21	Developed Recreation	419	1
	Total	34,873	100

Source: GIS (ARC/Info), allocation and geographic area layers

### Geographic Area Desired Condition

Lodgepole pine and spruce/fir will continue to be the dominant cover types, with increasing amounts of aspen in the French Creek drainage. In areas allocated to Management Area 5.13 (20%) in the western portion and Management Area 5.15 (49%) in the central portion, a variety of successional stages will be present.

Evidence of 1950s and 1960s era strip clearcuts will still be visible, but active management will continue to rehabilitate these areas to meet scenic integrity objectives.

Natural processes and vegetation patterns will be apparent in these areas. Forested portions of this area will be dominated by older late successional habitats with occasional increases of early successional habitats as a result of fire, insects, and disease.

The eastern portion will include backcountry summer nonmotorized, winter motorized (21%).

Large blocks of mature lodgepole pine/aspen habitat suitable for nesting goshawks will be maintained. The area will be managed for vegetative diversity, with emphasis on maintaining or creating quality habitat on elk calving areas and cow/calf summer range.

High quality scenery will occur along the Snowy Range Highway in the northern portion of the area.

Quality habitat on elk summer range, calving areas, and migration corridors will be maintained. Opportunities to improve bighorn migration corridors to summer range areas will be explored.

### **Geographic Area Objectives, Strategies, Standards, and Guidelines**

#### **Objective:**

1. Maintain and enhance the historical ranges within French Creek Canyon for fire-dependent species (aspen, ponderosa pine, and Douglas-fir) and unique riparian species (narrowleaf cottonwood and blue spruce).

#### **Strategies:**

1. Develop motorized trails and trailhead infrastructure (trailheads etc) in the Headquarters Park area.
2. Improve and expand trailer and tent sites at the Silver Lake campground to provide access for larger vehicles and more use.
3. Improve and expand the Mirror Lake picnic area and associated trails.
4. Provide interpretive signs at appropriate locations throughout the geographic area.

#### **Standard:**

1. Manage domestic sheep to provide adequate and effective separation from bighorn sheep, avoiding direct contact between the two.

## GEOGRAPHIC AREAS

### Guidelines:

1. Consider bighorn sheep management needs when conducting vegetative treatments.
2. Adhere to agreements in the Memorandum of Agreement between the Forest Service and Natural Resources Conservation Service for the Hydrometeorological Data Collection Sites shown in the table below:

Table 3-31 Hydrometeorological data collection sites.

Site Name	Station #	Elevation	Township	Range	Section
North French Creek	06H20S	10181	16N	80W	27

### **Lower Douglas Creek Geographic Area**

This 101,910-acre geographic area (98% federal ownership) is located in the southeastern corner of the Laramie District. There are several overhead utility corridors in the area, as well as the Fox Park Work Center. The dominant vegetation is lodgepole pine forests (71%). Grasses and shrubs comprise 18% of the vegetation. There are minor amounts of Douglas-fir, spruce/fir, limber pine, and aspen. Within the forested area, 21% is considered late successional.

The area includes water development facilities for municipal water supply for the City of Cheyenne. The Cheyenne Board of Public Utilities (CBPU) manages this water supply system. Lake Owen is the primary feature apparent on the landscape, but Stage I and II water conveyance pipelines to Lake Owen also exist in the area. Tributary watersheds to the Laramie River provide municipal water supply for Laramie, whose water intake diversion is located on the Laramie River a few miles downstream of Woods Landing.

Most soil and water impacts are the result of turn-of-the-century tie drives and mine tailings on Douglas Creek and Lower Pelton Creek. Because of the relatively flat terrain, the area does not contain any serious potential mass wasting hazard areas. Riparian areas consist primarily of willows, sedges, and rushes and are generally in good condition.

Past activities in the area have included the introduction of brook trout, rainbow trout, brown trout, elk, and moose. There are no native trout fisheries in the area. There has also been a variety of stream habitat improvement projects on Lower Douglas Creek.

Douglas Creek is an important spawning ground for the North Platte River. However, the stream has been heavily altered by historic mining and tie drives. The channel bed was dredged for mining purposes, and the stream itself was used to transport harvested timber. The Cheyenne Stage I and II water diversion pipeline has also affected the channel. Rob Roy Reservoir has regulated the flow regime of Lower Douglas Creek since the mid 1960s.

Current mule deer populations are below state objectives, while elk populations are above objective. Moose, which are not native to the Forest, are increasing in the area. The Wyoming Game and Fish Department has identified much of the eastern boundary of the area as crucial elk and deer winter range. There is also a migration corridor from Lake Owen to Sheep Mountain and a calving area east of Lake Owen.

The area contains three developed campgrounds, one of which is at Lake Owen. This lake is one of only two lakes on the District suitable for motorboats, and the lake is also a valuable fishery. Principle activities in the area include hunting and snowmobiling. Additional activities include camping, hiking, fishing, ATV use, firewood gathering, and recreational mining. Because of Highway 230, this area



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receives some of the highest snowmobile use on the Forest. Many groomed snowmobile trails are accessed from the Fox Park, Wyocolo, and Wold tract areas. This access also allows for late-season hunting opportunities. Chimney Park has approximately 5 miles of developed cross-country ski trails which receive heavy use when Pole Mountain has poor snow conditions.

There are hundreds of cultural sites in the geographic area, and they fall into seven historic themes: American Indian, fur trapping and early exploration, logging, mining, historic sites, grazing and ranching, and townsites and recreation residences/facilities.

Approximately 2,500 acres of the Sheep Mountain Game Refuge are located in the northeast portion of this geographic area. This portion of the game refuge is managed as critical big game winter range (MA 3.58) to maintain compatibility with the 1924 Proclamation which established the game refuge. For additional information on the Sheep Mountain Game Refuge, see the Sheep Mountain Geographic Area in this chapter.

Unique areas and features include the following:

- ♦ Cheyenne Stage I and II water pipelines.
- ♦ Lake Owen, one source of municipal water supply for the City of Cheyenne.
- ♦ Roper Cabin Special Interest Area.
- ♦ Sheep Mountain Game Refuge.
- ♦ Chimney Park cross-country ski area.
- ♦ Platte River Wilderness.
- ♦ Many historic sites, including Native American sites, Echo Lodge, Thompson Lodge, Gramm townsite, the LHP&P Railroad, Smith North Tie Camp, and Devil's Gate Flume.

**Management Area Prescription Allocation** – The management area prescriptions applied to the Lower Douglas Creek Geographic Area are listed in the following table.

Table 3-32. Lower Douglas Creek management area prescriptions.

#	MA Prescription	Acres	Percent of Total Area
1.13	Wilderness, Semi-primitive	891	1
1.31	Backcountry Recreation, Year-round Nonmotorized	5,846	6
2.1	Special Interest Areas	66	<1
3.33	Backcountry Recreation, Year-round Motorized	241	<1
3.58	Crucial Deer and Elk Winter Range	11,959	12

#	MA Prescription	Acres	Percent of Total Area
4.3	Dispersed Recreation	1,696	2
5.13	Forest Products	27,500	27
5.15	Forest Products, Ecological Maintenance and Restoration Considering the Historic Range of Variability	50,692	50
8.21	Developed Recreation	619	<1
8.6	Administrative Sites	86	<1
	Nonfederal land	2,314	2
	Total	101,910	100

Source: GIS (ARC/Info), allocation and geographic area layers

### Geographic Area Desired Condition

Lodgepole pine will continue to be the dominant cover type, with increasing amounts of aspen in the lower elevation drainages in the southern and eastern portions. In areas allocated to Management Area 5.13 (27%) in the northern portion and Management Area 5.15 (50%) in the west and southeastern portions, a variety of successional stages will be present. Forest stand density above Lake Owen may be managed to maintain long-term water quality and quantity, while reducing the risk of catastrophic wildfire and insects and diseases.

Natural processes and vegetation patterns will be apparent in the area. This area will be dominated by older late successional habitats with occasional increases of early successional habitats.

Dispersed motorized recreation opportunities will dominate this area. The central portion west of Somber Hill will include backcountry motorized recreation opportunities.

The southern portion of the Sheep Mountain Game Refuge (south of Fox Creek Road NFSR 311) will continue to provide valuable critical big game winter range habitat.

Good quality big game winter range will continue to dominate the eastern slopes of this area. Shrubland vegetation in this area will include a mix of seral stages.

## Geographic Area Objectives, Strategies, Standards, and Guidelines

### Objectives:

1. As funding allows, establish a nonmotorized trail on the old abandoned railroad bed that runs across the Forest. Develop needed facilities such as trailhead, parking lots, toilets, etc.
2. Reduce unauthorized off route use within the Sheep Mountain Game Refuge south of the Fox Creek Road (NFSR 311) through public education, signing and increased law enforcement efforts.

### Strategies:

1. Survey and post the Sheep Mountain Game Refuge Boundary
2. Develop a motorized trail system.
3. Convert the old caboose by Lake Owen into an interpretive facility.
4. Construct a pedestrian trail around Lake Owen with "barrier free" sections to accommodate visitors with disabilities.
5. Develop a group campground in the dispersed camping area immediately adjacent to the Lake Owen Campground.

### Standards:

1. Manage Highway 230 for motorized and nonmotorized use where it crosses critical winter range habitat.
2. Manage the Fox Creek Road (NFSR 311) for motorized use.

### Guidelines:

1. Ensure that all management activities within the proclaimed Sheep Mountain Game Refuge boundary are consistent with guidance described in the proclamation.
2. Adhere to agreements in the Memorandum of Agreement between the Forest Service and Natural Resources Conservation Service for the Hydrometeorological Data Collection Sites shown in the table below:

Table 3-33 Hydrometeorological data collection sites.

Site Name	Station #	Elevation	Township	Range	Section
Fox Park	06H12	9060	13N	78W	21

### **Middle Fork Geographic Area**

This geographic area encompasses approximately 35,352 acres in the mid-eastern section of the Laramie District. This acreage includes 415 acres of private land, no state land, and 34,937 acres of National Forest System land. Lodgepole pine forests are the dominant vegetation (61%). Spruce/fir and grasses and shrubs make up 18% and 13% of the vegetation respectively. There are minor amounts of aspen, Douglas-fir, and limber pine. Within the forested area, 36% is considered late successional. High-elevation riparian vegetation adjacent to the major drainages is dominated by forbs, meadow grasses, and sedges intermixed with willows. Lower elevation riparian vegetation consists of cottonwood, aspen, alder, and willow.

Soil mass wasting potential is low to moderate, however, Sherman granite soils in the area offer moderate to high erosion potential. Riparian areas are generally in good condition. The major drainages include the Middle Fork and the South Fork of the Little Laramie River.

For the past 11 years, the management emphasis in this geographic area has been on wildlife. As such, the entire area has been designated as spring/summer/fall big game range, with winter range along the eastern boundary. Mountain lion are attracted to the winter range because of the mule deer populations. Existing elk populations are above herd objectives while mule deer populations are below. Moose, which are not native to the Forest, are also increasing in number. The area contains the last known populations of boreal toads on the Laramie District.

The South Fork of the Little Laramie River is a low production trout fishery incapable of sustaining substantial fishing pressure. Spawning of brook trout is fair but appears adequate to sustain the existing population. Although brook trout were stocked between 1937 and 1960, fishing pressure has not been quantified. The Middle Fork of the Little Laramie River is a trout fishery of regional importance. The Middle Fork is a popular fishing stream and has a well-distributed and abundant mix of quality fish habitat. Although historic mining has altered the Middle Fork, dredging in particular, water quality in it and the South Fork is generally good. The northeastern end (Centennial Ridge) of the area lies within the aquifer recharge zone from which Centennial obtains municipal supply water.

There are no developed campgrounds in the area. However, there are excellent dispersed camping opportunities, ranging from remote areas with little use to long-established campsites along the major roads. Several areas have become so popular that they would be good candidates for hardening to mitigate resource damage. There are ample four-wheel drive opportunities, and this area is one of the most popular hunting areas on the District. The town of Albany serves as a full service winter destination and trailhead for snowmobiling. This geographic area is one of the most popular snowmobiling areas in southeastern Wyoming. Backcountry skiing is also becoming popular in the area. Centennial Ridge offers some excellent backcountry skiing terrain.

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Approximately 500 acres of the Sheep Mountain Game Refuge are located in the southeast portion of this geographic area. This portion of the game refuge is managed as critical big game winter range (MA 3.58) to maintain compatibility with the 1924 Proclamation, which established the game refuge. For additional information on the Sheep Mountain Game Refuge, see the Sheep Mountain Geographic Area in this chapter.

Unique areas and features include the following:

- ♦ Libby Flats Roadless Area (approximately 6,000 acres) with Krumholtz and ribbon forests.
- ♦ The highest concentration of historic mining on the Laramie District.
- ♦ Centennial Ridge Special Interest Area.
- ♦ Sunken Gardens Special Interest Area.
- ♦ Cinnabar Park Special Interest Area (also in Upper Douglas Creek).
- ♦ Approximately 10,000 acres of un-inventoried unroaded terrain.
- ♦ Cheyenne Stage I and II water pipelines.

**Management Area Prescription Allocation** – The management area prescriptions applied to the Middle Fork Geographic Area are listed in the following table.

Table 3-34. Middle Fork management area prescriptions.

#	MA Prescription	Acres	Percent of Total Area
1.31	Backcountry Recreation, Year-round Nonmotorized	1,269	4
1.33	Backcountry Recreation, Summer Nonmotorized with Winter Snowmobiling	9,346	26
2.1	Special Interest Areas	4,908	14
3.31	Backcountry Recreation, Year-round Motorized	2,896	8
3.58	Crucial Deer and Elk Winter Range	406	1
4.2	Scenery	35	<1
4.3	Dispersed Recreation	69	<1
5.13	Forest Products	197	1
5.15	Forest Products, Ecological Maintenance and Restoration Considering the Historic Range of Variability	15,516	44
8.6	Administrative Sites	250	1
	Nonfederal land	460	1
	Total	35,352	100

Source: GIS (ARC/Info), allocation and geographic area layers

### **Geographic Area Desired Condition**

Lodgepole pine will continue to be the dominant cover type, with increasing amounts of aspen in the lower elevation drainages in the eastern edge of the area. In areas allocated to Management Area 5.15 (44%) in the western portion, a variety of successional stages will be present.

Evidence of 1950s and 1960s era strip clearcuts will still be visible, but active management will continue to rehabilitate these areas to meet scenic integrity objectives.

Natural processes and vegetation patterns will be apparent in these areas. These areas will be dominated by older late successional habitats with occasional increases of early successional habitats as a result of fire, insects, and disease.

Dispersed motorized recreation opportunities will occur primarily along the western edge of the area. Backcountry nonmotorized with winter motorized opportunities (26%) will prevail in the central and western portions of the area.

The Centennial Ridge Special Interest Area will provide a variety of interpretive opportunities on historic mining.

Good quality big game winter range will continue to dominate the eastern slopes of this area. Shrubland vegetation in this area will include a mix of seral stages.

### **Geographic Area Objectives, Strategies, Standards, and Guidelines**

#### **Objective:**

1. As funding allows, establish a nonmotorized trail on the old abandoned railroad bed that runs across the Forest. Develop needed facilities such as trailhead, parking lots, toilets, etc.

#### **Guidelines:**

1. Manage domestic sheep to provide adequate and effective separation from bighorn sheep, avoiding direct contact between the two.
2. Consider bighorn sheep management needs when conducting vegetative treatments.
3. Adhere to agreements in the Memorandum of Agreement between the Forest Service and Natural Resources Conservation Service for the Hydrometeorological Data Collection Sites shown in the following table:

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Table 3-35 Hydrometeorological data collection sites.

Site Name	Station #	Elevation	Township	Range	Section
Albany	06H11	9120	14N	78W	17
Cinnabar Park	N/A*	9690	15N	79W	26

\* Site number not available at this time.

## North Fork Geographic Area

This geographic area encompasses approximately 25,234 acres (all federal ownership) in the mid northeastern section of the Laramie District. The dominant vegetation types are spruce/fir and lodgepole pine, 39% and 34% respectively. Twenty-two percent of the vegetation is grasses and shrubs, with minor amounts of aspen and limber pine. Within the forested area, 42% is considered late successional. Willows, aspen, cottonwood, and conifers dominate riparian vegetation. Lower elevation riparian vegetation consists of cottonwood, aspen, alder, and willow.

The soil mass wasting potential and erosion potential are both moderate to high. Riparian areas are generally in good condition. The primary drainage in this area is the North Fork of the Little Laramie River, one of the few basins that originates in alpine peaks and flows to sagebrush-steppe habitat. This stream has not been altered by historic mining or tie drives.

There are no native fisheries in this area. Introduced species include brook trout, rainbow trout, and brown trout. There are numerous high alpine lakes that are extremely popular fishing spots. Barber Lake is universally accessible and is a popular lower-elevation fishing lake. The area also contains high-elevation kettle ponds that provided boreal toad habitat in the past.

Current elk populations are above herd unit objectives; the mule deer population is below objective. Moose, which are not native to the Forest, are increasing in numbers. The entire area is considered spring/summer/fall big game range. The southeastern boundary of the area is considered winter range. There is suitable cliff nesting habitat for raptors.

A dominant attraction is the Snowy Range Scenic Byway corridor that has both a roaded natural and rural ROS setting. There are eight developed campgrounds, five developed picnic grounds, and two developed trailhead parking areas in proximity or adjacent to the highway. The Snowy Range Ski Area, Corner Mountain, and Little Laramie Nordic Trails offer both downhill and cross country skiing opportunities. The Green Rock area serves as a winter trailhead to over 90 miles of groomed snowmobile trails and countless miles of “world class” backcountry snowmobiling. The area has four lodges under special use permit. They offer meals and lodging, with an assortment of guided snowmobile trips in the winter and horseback rides in the summer. The Centennial Visitor Center is located at the east entrance on Highway 130. It offers an array of interpretive brochures, maps, and permits and is staffed seven days a week in the summer and on weekends during the winter.

There is widespread evidence of historic use in the area. The majority of the hundreds of cultural sites fall into seven historic themes: American Indian, logging, mining, historic transportation, Civilian Conservation Corps and Forest Service administrative sites, grazing, and recreation. Outstanding sites within the GA



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include the Old Snowy Range Road, Snowy Range Lodge, Little Brooklyn Guard Station, and the La Plata Mining District.

The Glacier Lakes Ecosystem Experimental Site (GLEES), located near Browns Peak, was established to examine effects of atmospheric change on alpine and subalpine ecosystems. The site offers a unique opportunity to conduct ecosystem-level research in a wilderness-like setting that is unencumbered by the restrictions associated with federally designated wilderness areas. The research conducted here provides knowledge and technology to identify, measure, and predict responses of natural ecosystems to physical and chemical change in the atmosphere.

Unique areas and features include the following:

- ♦ The Libby Flats Observatory.
- ♦ The Snowy Range Research Natural Area.
- ♦ Medicine Bow Peak Special Interest Area.
- ♦ The Snowy Range Ski Area.
- ♦ Little Brooklyn Guard Station and cabin rental.
- ♦ The Snowy Range Scenic Byway.
- ♦ Krumholtz vegetation, high alpine lakes, and ribbon forest in the southern portion of the area.
- ♦ Glacier Lakes Ecosystem Experimental Site (GLEES).

**Management Area Prescription Allocation** – The management area prescriptions applied to the North Fork Geographic area are listed in the following table.

Table 3-36. North Fork management area prescriptions.

#	MA Prescription	Acres	Percent of Total Area
1.31	Backcountry Recreation, Year-round Nonmotorized	2,952	12
1.33	Backcountry Recreation, Nonmotorized with Winter Snowmobiling	5,051	20
2.1	Special Interest Areas	345	2
2.2	Research Natural Areas	734	3
3.31	Backcountry Recreation, Year-round Motorized	3,313	13
4.2	Scenery	2,473	10
4.3	Dispersed Recreation	307	1
5.13	Forest Products	1,793	7
5.15	Forest Products, Ecological Maintenance and Restoration Considering the Historic Range of Variability	6,098	24

#	MA Prescription	Acres	Percent of Total Area
8.21	Developed Recreation	817	3
8.22	Ski-based Resorts, Existing and Potential	1,350	5
	Total	25,234	100

*Source: GIS (ARC/Info), allocation and geographic area layers*

### Geographic Area Desired Condition

Lodgepole pine and spruce/fir will continue to be the dominant cover types. In areas allocated to Management Area 5.13 (7%) and Management Area 5.15 (24%) in the northeastern portion, a variety of tree sizes and successional stages will be present.

Natural processes and vegetation patterns will be apparent in these areas. Forested portions of these areas will be dominated by older late successional habitats with occasional increases of early successional habitats as a result of fire, insects, and disease.

This area will continue to be one of the most popular winter recreation areas on the Forest. Dispersed motorized recreation opportunities will continue in the eastern portion of the area. The areas north of the Green Rock picnic area will provide backcountry summer nonmotorized with winter snowmobiling opportunities (20%). The south western portion at higher elevations will provide backcountry year-round motorized opportunities. The southeastern portion will provide backcountry year-round nonmotorized opportunities (12%).

Expansion of the Snowy Range Ski Area may enhance downhill skiing opportunities on the Forest. If formally proposed, site-specific NEPA analysis will be conducted to determine if an expansion of the ski area is appropriate.

This area will continue to provide some of the most spectacular scenery on the Forest. The Snowy Range Scenic Byway will be managed to maintain scenic quality.

### Geographic Area Objectives, Strategies, Standards, and Guidelines

Objectives:

1. Manage winter recreation to minimize conflicts between motorized and non-motorized users.
2. Minimize adverse recreation impacts to the GLEES research area.

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### Strategies:

1. Establish new trailheads for winter use in the Highway 130 corridor, including facilities such as parking lots, toilets, etc.
2. Convert the old "Shepherders Cabin" into an overnight recreational rental facility.
3. Reduce seepage at Barber Lake to improve the fishery and reduce water diversion needs.
4. As funding allows, expand the cross-country ski trail system.

### Guidelines:

1. Manage domestic sheep to provide adequate and effective separation from bighorn sheep, avoiding direct contact between the two.
2. Consider bighorn sheep management needs when conducting vegetative treatments.
3. Adhere to agreements in the Memorandum of Agreement between the Forest Service and Natural Resources Conservation Service for the Hydrometeorological Data Collection Sites shown in the table below:

Table 3-37 Hydrometeorological data collection sites.

Site Name	Station #	Elevation	Township	Range	Section
Brooklyn Lake	06H13S	10325	16N	79W	14
Hairpin Turn	06H02	9460	16N	78W	19
Libby Lodge	06H03	8750	16N	78W	29

4. Ensure that adequate wildlife security areas occur within close proximity of developed areas such as ski resorts.

### Pass Creek Geographic Area

The dominant vegetation types in this 20,201-acre geographic area (96% federal ownership) are lodgepole pine (46%) at the lower elevations and Engelmann spruce and subalpine fir (39%) at the middle to higher elevations. Within the forested area, 48% is considered late successional. Unbroken forests characterize the southern and central portions of the area; the north portion is a mosaic of stringer forest and treeless sagebrush shrubland. Past glaciation in the southern and southeastern parts created numerous kettle ponds.

Perennial streams are limited by the sparse, low-elevation snowpack; many channels are intermittent or seasonal. The area drains and dries early in the snowmelt season, leaving only various springs and seeps to produce surface water. The northern end of the area lies within the aquifer recharge zone from which Elk Mountain obtains municipal supply water.

About three-fourths of the area occurs in the vegetation/elevation zone preferred by nesting goshawks, with many known nest sites. The area contains elk calving areas at lower elevations and provides important deer/elk summer range. There is also a major migration corridor to winter range. This area also is popular for bear baiting, and black bear research is currently under way by the University of Wyoming.

Dispersed camping is very popular in this area, particularly during the big game hunting season in September and October. There is some fishing in this area, but the primary recreation activities are driving for pleasure and viewing wildlife and scenery. The Kennaday Peak Fire Lookout is a destination point with scenic value and interpretive opportunities.

Unique areas and features include the following:

- ♦ Kennaday Peak Fire Lookout.
- ♦ Glacial kettle ponds.

**Management Area Prescription Allocation** – The management area prescriptions applied to the Pass Creek Geographic Area are listed in the following table.

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Table 3-38. Pass Creek management area prescriptions.

#	MA Prescription	Acres	Percent of Total Area
3.31	Backcountry Recreation Year-round Motorized	598	3
5.15	Forest Products, Ecological Maintenance and Restoration Considering the Historic Range of Variability	18,836	93
5.41	Deer and Elk Winter Range	31	<1
8.6	Administrative Sites	28	<1
	Nonfederal land	708	4
	Total	20,201	100

Source: GIS (ARC/Info), allocation and geographic area layers

### Geographic Area Desired Condition

Lodgepole pine and spruce/fir will continue to be the dominant cover types, with increasing amounts of aspen in the northern portion of the area. In areas allocated to Management Area 5.15 (93%), a variety of successional stages will be present.

Dispersed recreation opportunities will continue to dominate this area.

Special emphasis will be placed on maintaining and promoting aspen to its historical range. Patches of aspen in the lower elevations in the north will increase in size and occurrence.

There will be quality habitat in elk calving areas and important cow/calf summer range. Primitive and semi-primitive hunting experiences will be available.

### Geographic Area Objectives, Strategies, Standards, and Guidelines

Objective:

1. Maintain or enhance fire-dependent species such as aspen, ponderosa pine, and Douglas-fir.

### **Pennock Mountain Geographic Area**

Lodgepole pine forests (34%) are the dominant vegetation in this 24,014-acre geographic area, 87% of which is in federal ownership. The lodgepole pine becomes mixed with aspen at lower elevations. Engelmann spruce and subalpine fir (20%) are relegated to the highest elevations on the western slope of Kennaday Peak. Aspen comprises 16% of the vegetation in this GA. The eastern portions of the area are predominantly unbroken forests. The western portion is a mosaic of stringer forest and treeless sagebrush shrubland, with limber pine and relic stands of ponderosa pine and Douglas-fir. Most of the aspen stands are also located in the western part of the area. Much of the aspen is associated with historic landslide deposits. Within the forested area, 44% is considered late successional.

The Pennock Mountain geographic area is surrounded by private land on all but the southeastern side, with some BLM on the south end, making the area fairly inaccessible. Access from the southeast has been difficult due to the mass wasting hazards and highly erosive soils on the northwestern slope of Kennaday Peak. This connection with private lands raises interesting travel management issues with respect to private access vs. public access. Historic access points have been blocked when ownership has changed, and new trails onto the Forest have been constructed, resulting in “private” motorized access to the Forest.

High mass wasting and erosion potential due to soil types and topography influence the soil and water resource. Former landslide areas on the west slope of Kennaday Peak have caused problems stabilizing roads in the area. Middle Cedar Creek has a downcut and destabilized channel that resulted from a flash flood and possibly the failure of a beaver dam. Timber management in the area is limited by soil stability. Past overgrazing has influenced stream morphology at lower elevations near the Forest boundary and also has impacted water quality at springs and seeps.

Unauthorized off-road vehicle use occurs in this area, especially during the big game hunting seasons. ATV use has increased the number of user-created roads in the area. There are conflicts between motorized and nonmotorized users and the Forest Service is currently analyzing travel management in the area. Dispersed camping is popular in the area, as is horseback riding; these uses primarily occur during the big game hunting seasons. Kennaday Peak Lookout is a destination point for viewing scenic value and is an interpretive site.

Unique areas and features include the following:

- ♦ Kennaday Peak Fire Lookout.

**Management Area Prescription Allocation** – The management area prescriptions applied to the Pennock Mountain Geographic Area are listed in the following table.

Table 3-39. Pennock Mountain management area prescriptions.

#	MA Prescription	Acres	Percent of Total Area
3.58	Crucial Deer and Elk Winter Range	9,120	38
5.15	Forest Products, Ecological Maintenance and Restoration Considering the Historic Range of Variability	9,066	38
5.41	Deer and Elk Winter Range	2,635	11
8.6	Administrative Sites	30	<1
	Nonfederal land	3,162	13
	Total	24,014	100

Source: GIS (ARC/Info), allocation and geographic area layers

### Geographic Area Desired Condition

Lodgepole pine, aspen, and spruce/fir will continue to be the dominant cover types, with increasing amounts of aspen. In areas allocated to Management Area 5.15 (38%), a variety of successional stages will be present.

Natural processes and vegetation patterns will be apparent in these areas. Forested portions of this area will be dominated by older late successional habitats with occasional increases of early successional habitats as a result of fire, insects, and disease.

Dispersed motorized recreation opportunities will dominate the southern portion of this area.

High quality big game winter range will be provided on the western slopes. Shrubland species in this area will include a broad mix of seral stages.

Special emphasis will be placed on maintaining and restoring fire-dependent species such as aspen to their historical ranges.

### Geographic Area Objectives, Strategies, Standards, and Guidelines

Objectives:

1. Where other landowners are willing, enter into land exchanges/purchases to obtain right-of-way access to the Pennock Mountain GA.
2. Maintain or enhance fire-dependent species such as aspen, ponderosa pine, and Douglas-fir.

## Platte River Geographic Area

This 59,955-acre geographic area is located in the southwest corner of the Laramie District. It includes 120 acres of private land, no state land, and 59,836 acres of National Forest System land. The west half of the area is relatively dry and consists primarily of juniper, cottonwood, sagebrush, bitterbrush, aspen, ponderosa pine, and Douglas-fir. The east half consists primarily of lodgepole pine. Lodgepole pine is the dominant vegetation (55%). Grasses, forbs, and shrubs comprise 26% of the vegetation. There are minor amounts of Douglas-fir (8%), aspen (5%), and spruce/fir (5%). Willows, alder, and cottonwood dominate riparian vegetation. Within the forested area, 32% is considered late successional.

The potential for mass soil wasting is low and soil erosion potential is moderate. Riparian areas are generally in good shape. There are mine tailings along Douglas Creek and Lower Pelton Creek and some erosion problems on the Platte Ridge Trail and the two-track roads in the wilderness.

A 12-mile segment of the North Platte River, the largest and most popular fishing stream on the District, is included in the area. Although tie drives and historic mining have affected its channel, habitat conditions are good to excellent. Other major creeks in the area include Douglas Creek, Savage Run Creek, Cottonwood Creek, and Mullen Creek. Historic mining has heavily altered Douglas Creek and tie drives have affected the lower sections of Savage Run Creek. Past livestock overgrazing has impacted some lower sections of Cottonwood Creek.

Douglas Creek is an important spawning ground for the North Platte River, and spawning conditions in Lower Douglas Creek have improved as a result of habitat improvement projects. Lower Douglas Creek has been, and continues to be, affected by the Cheyenne Stage I and II water diversion pipeline. Rob Roy Reservoir has regulated the flow of Lower Douglas Creek since the mid 1960s. There are no water quality data available for Savage Run, Cottonwood, or Mullen Creeks.

There is a transplanted population of bighorn sheep which is below the herd unit objective. The primary limiting factor is loss of access to alpine vegetation for lactating ewes and young lambs. Historic migration routes have been lost to forest encroachment as a result of fire suppression and the lack of corridors due to restrictions on the size of created openings and fire suppression. Current elk populations are above herd unit objective, while mule deer populations are below. Moose, which are not native to the Forest, are increasing in numbers. The entire area is yearlong range for elk, mule deer, and bighorn sheep, including crucial winter range for elk and bighorn sheep, winter range for mule deer, and calving and lambing areas for elk and bighorns. The area provides suitable nesting habitat for a peregrine falcon. The only known threatened species in the area is the bald eagle.

The primary ROS for this area is semi-primitive due to the presence of two wilderness areas. Outside the wilderness areas, the ROS is roaded natural, roaded



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modified, and some semi-primitive nonmotorized. There are three major trails: the Douglas Creek Trail, Platte River Trail, and Savage Run Trail. All are suitable for horses and hikers. Because of their small size, neither wilderness area is suitable for extended backpacking or horse-pack trips. Fishing is excellent in both Douglas Creek and Platte River, and whitewater rafting and kayaking are excellent in the Platte River. Hunting in the two wilderness areas is excellent, and dispersed camping is popular, especially during hunting season. Developed recreation sites include Six Mile, Pickeroon and Pike Pole Campgrounds.

There is widespread evidence of historic use throughout the area. The majority of the hundreds of cultural sites fall into six historic themes: American Indian, logging, mining, historic transportation, Forest Service administrative sites, and grazing and ranching.

Unique areas and features include the following:

- ♦ Savage Run and Platte River Wilderness Areas.
- ♦ Two distinct vegetative zones.
- ♦ A herd of bighorn sheep.
- ♦ Savage Run and Platte Canyon Research Natural Areas.
- ♦ North Platte River Proposed Wild River and Proposed Scenic River.
- ♦ Evidence of historic logging and mining activities.

**Management Area Prescription Allocation** – The management area prescriptions applied to the Platte River Geographic Area are listed in the following table.

Table 3-40. Platte River management area prescriptions.

#	MA Prescription	Acres	Percent of Total Area
1.13	Wilderness, Semi-primitive	36,808	61
1.31	Backcountry Recreation, Year-round Nonmotorized	500	1
1.5	National River System –Wild Rivers, Designated and Eligible	4,222 (Inclusion)	7
2.2	Research Natural Area	10,043 (Inclusion)	17
3.4	National River System, Scenic Rivers	729	1
3.58	Crucial Deer and Elk Winter Range	5,236	10
5.13	Forest Products	6,194	12
5.15	Forest Products, Ecological Maintenance and Restoration Considering the Historic Range of Variability	7,277	8
5.41	Deer and Elk Winter Range	2,905	5
8.21	Developed Recreation	187	<1
	Nonfederal land	120	<1
	Total	59,955	100

Source: GIS (ARC/Info), allocation and geographic area layers

**Geographic Area Desired Condition**

Lodgepole pine will continue to be the dominant cover type. In areas allocated to Management Area 5.13 (12%) in the northern portion and Management Area 5.15 (8%) in the central portion, a variety of tree sizes and successional stages will be present.

Natural processes and vegetation patterns will be apparent in these areas. Forested portions of these areas will be dominated by older late successional habitats with occasional increases of early successional habitats as a result of fire, insects, and disease.

The Platte River and Savage Run Wilderness Areas will continue to provide a variety of high quality wilderness experiences.

Backcountry nonmotorized year-round recreation opportunities will dominate the area (62%) in the existing wilderness areas and crucial big game winter range. Limited amounts of winter and summer motorized opportunities are available.

The Platte Canyon and Savage Run Research Natural Areas will provide highly diverse ecological habitats as part of the regional system of RNAs.

The North Platte River will provide rafting and fishing opportunities.

**Geographic Area Objectives, Strategies, Standards, and Guidelines****Objective:**

1. Maintain or enhance fire dependent species such as aspen, ponderosa pine, and Douglas-fir.

**Standards:**

1. Manage the Sixmile Road (NFSR 492) for motorized and nonmotorized use.
2. Manage domestic sheep to provide adequate and effective separation from bighorn sheep, avoiding direct contact between the two.

**Guideline:**

1. Consider bighorn sheep management needs when conducting vegetative treatments.

## Sheep Mountain Geographic Area

Proclaimed boundary should show up on the Forest Plan Map.

This geographic area encompasses approximately 24,772 acres in the extreme midwestern section of the Laramie District and includes 4,831 acres of private land, 1,280 acres of state land, and 18,688 acres of National Forest System land.

Lodgepole pine is the dominant vegetation (36%). Within the forested area, 41% is considered late successional. Grasses and shrubs make up 29%, and there are minor amounts of aspen and ponderosa pine (4% and 5% respectively). Willows, sedges, aspen, and alder dominate riparian vegetation.

This geographic area includes approximately 25,000 acres of the Sheep Mountain Game Refuge. The game refuge was established in 1924 as a refuge for the protection and propagation of game animals and birds. Most of the area north of the Fox Creek Road (NFSR 311) is to be managed under primitive conditions.

Riparian areas are in good condition. The area currently supports fish populations in Fence Creek, the North Fork of Hecht Creek, and the South Fork of Hecht Creek. It is also possible that the lower end of Buckeye Creek contains brook trout. No information is available for Johns Creek.

Native bighorn sheep were extirpated sometime in the 1800s. Bighorn sheep were transplanted into the area in 1928, but the population has since died out. Current elk and antelope populations are above herd objectives; mule deer populations are below objectives. The downward trend in mule deer populations could be the result of a downward trend in big game browse species. The entire area provides yearlong elk and mule deer range, and the eastern and western boundaries are crucial winter range. The northwest and eastern boundaries of the area are also yearlong range and crucial winter range for antelope. Mountain lions are attracted to Sheep Mountain, particularly during the winter months. Rock outcrops and cliffs provide nesting habitat for raptors, such as prairie falcons and golden eagles.

The predominant ROS class is semi-primitive. There is some semi-primitive motorized where the area overlaps the main part of the Forest near Squirrel Creek. The entire bottom area of the mountain might be categorized as rural due to the numerous ranches that surround it, as well as Highway 11 which runs along the base of the eastern slope. There are no developed campgrounds and only a few dispersed campsites in the area. There are two trails that can be accessed from five different locations, two of which are minimally developed trailheads. The trails are suitable for hikers and experienced equestrians. Mountain biking is possible, but only for individuals in excellent conditions. Hunting for big game is excellent due to the nonmotorized hunting opportunities.

There is widespread evidence of historic use in the area. The majority of the hundreds of cultural sites fall into five historic themes: Native American, logging,

mining, Civil Conservation Corps, and grazing and ranching. Outstanding sites include Native American sites and the Agnes Consolidated Mine.

Unique areas and features include the following:

- ♦ Sheep Mountain Game Refuge.
- ♦ Almost entirely surrounded by private land.
- ♦ Cheyenne Stage I and II water pipeline.

**Management Area Prescription Allocation** - The management area prescriptions applied to the Sheep Mountain Geographic Area are listed in the following table.

Table 3-41. Sheep Mountain management area prescriptions.

#	MA Prescription	Acres	Percent of Total Area
3.54	Special Wildlife Areas (Sheep Mountain)	16,990	69
3.58	Crucial Deer and Elk Winter Range	67	<1
5.41	Deer and Elk Winter Range	1,613	6
	Nonfederal land	6,103	25
	Total	24,772	100

*Source: GIS (ARC/Info), allocation and geographic area layers*

### Geographic Area Desired Condition

Lodgepole pine will continue to be the dominant cover type. There will be increasing amounts of aspen and ponderosa pine. Patch size will continue to be large with the majority of forested vegetation in late successional habitats.

Shrubland vegetation in the lower elevations will include a broad mix of seral stages and provide quality big game forage.

Natural processes and vegetation patterns will be apparent in this area. This area will be dominated by older, late successional habitats with occasional increases of early successional habitats as a result of fire, insects, and disease.

Recreation opportunities are limited to semi-primitive nonmotorized activities. Recreation use in this area is generally low.

### Geographic Area Objectives, Strategies, Standards, and Guidelines

No additional objectives, strategies, standards and guidelines.

### **Snowy Range, Eastern Front Geographic Area**

This 62,633-acre geographic area is located in the northeastern section of the Laramie District with the western portion administered by the Brush Creek/Hayden District. It includes 790 acres of private land, non-state land, and 61,853 acres of National Forest System land. The dominant vegetation types are lodgepole pine (52%) and spruce/fir (31%). Within the forested area, 49% is considered late successional. Grasses and shrubs comprise 11% of the vegetation, and there are minor amounts of aspen (2%) and limber pine (1%). Cottonwoods, willows, alder, and conifers dominate riparian vegetation.

The area has been extensively affected by glaciation. There is a high soil mass wasting potential and high erosion potential. Riparian areas are generally in good condition. There are three major drainages in the area: Rock Creek, Trail Creek, and Deep Creek, all of which are popular small creek fisheries. Rock Creek and its associated tributaries have been affected by historic tie drives, while Deep Creek, below Sand Lake, has been altered by irrigation releases from the dam. Municipal water supply for Rock River is obtained from Rock Creek some 20 miles downstream of the Forest.

Current elk populations are at or above herd unit objectives, while mule deer populations are below objective. The area also provides habitat for a small population of antelope. The entire area is considered spring/summer/fall big game range. The eastern boundary of the area is also considered crucial winter range for deer and elk, while the southeast corner provides winter/year-long range for antelope.

The ROS is roaded motorized, semi-primitive motorized, and semi-primitive nonmotorized. There is only one developed campground, Deep Creek. There are many dispersed camping areas, and they are generally used most during hunting season. Hunting and fishing are popular activities, as well as 4x4 and ATV travel. Illegal ATV use of closed, gated roads is a problem in some areas. There are several trails in the area that are suitable for hiking and extended horseback travel. The Rock Creek trail provides one of the only long distance mountain biking opportunities and is also a National Recreation Trail. Snowmobiling is a popular winter activity.

There is widespread evidence of historic use in the area. The majority of the hundreds of cultural sites fall into seven historic themes: American Indian, fur trapping and early exploration, logging, mining, historic sites, grazing and ranching, and townsites and recreation residences/ facilities.

Unique areas and features include the following:

- ♦ Ribbon Forest Special Interest Area (also Bow River GA).
- ♦ White Rock Canyon Special Interest Area (also Bow River GA).
- ♦ Evidence of historic activity, including American Indian sites, the Cooper Hill Mining District, and the Mountford Trail.
- ♦ Rock Creek National Recreation Trail.

**Management Area Prescription Allocation** – The management area prescriptions applied to the Snowy Range Eastern Front Geographic Area are listed in the following table.

Table 3-42. Snowy Range, Eastern Front management area prescriptions.

#	MA Prescription	Acres	Percent of Total Area
1.2	Recommended for Wilderness	17,539	28
1.33	Backcountry Recreation, Summer Nonmotorized with Winter Snowmobiling	4,964	8
2.1	Special Interest Areas	2,949	5
3.31	Backcountry Recreation, Year-round Motorized	2,937	5
3.58	Crucial Deer and Elk Winter Range	3,025	5
5.13	Forest Products	5,172	8
5.15	Forest Products, Ecological Maintenance and Restoration Considering the Historic Range of Variability	25,201	40
8.21	Developed Recreation	46	<1
	Nonfederal land	800	1
	Total	62,633	100

Source: GIS (ARC/Info), allocation and geographic area layers

### Geographic Area Desired Condition

Lodgepole pine and spruce/fir will continue to be the dominant cover types, with increasing amounts of aspen in the southeastern lower elevations. In areas allocated to Management Area 5.13 (8%) in the south central portion and Management Area 5.15 (40%) in the central portion, a variety of successional stages will be present.

Evidence of 1950s and 1960s era strip clearcuts in the western portion will be diminished as a result of both active management and time.

Natural processes and vegetation patterns will be apparent in these areas. Forested portions of this area will be dominated by older late successional habitats with

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occasional increases of early successional habitats as a result of fire, insects, and disease.

Dispersed motorized recreation opportunities will be provided in the southern portion of the area. Backcountry nonmotorized year round opportunities occur in the northern portion. The high elevations of the southwestern portion provide backcountry nonmotorized opportunities with winter motorized (8%).

The Rock Creek Recommended Wilderness Area will provide high quality summer semi-primitive nonmotorized recreation opportunities. Until Rock Creek recommended wilderness area is formally designated as wilderness, snowmobile riding will continue to be allowed.

The Ribbon Forest Special Interest Area will provide unique botanical interpretive opportunities.

The eastern slopes will provide high quality big game winter range habitat.

### **Geographic Area Objectives, Strategies, Standards, and Guidelines**

#### Objectives:

1. Develop trailheads and other needed facilities to manage the 1.2 Recommended Rock Creek Wilderness Area.
2. Reduce unauthorized off route use within the Snowy Range Eastern Front Geographic Area.
3. Maintain or enhance fire-dependent species such as aspen and Douglas-fir.

#### Standard:

1. Manage NFSR 111 for motorized use.

#### Guideline:

1. Adhere to agreements in the Memorandum of Agreement between the Forest Service and Natural Resources Conservation Service for the Hydrometeorological Data Collection Sites shown in the table below:

Table 3-43. Hydrometeorological data collection sites.

Site Name	Station #	Elevation	Township	Range	Section
Sand Lake	06H23S	10188	17N	79W	9

### Upper Douglas Creek Geographic Area

This geographic area encompasses approximately 36,307 acres in the middle of the Laramie District with the northwest portion administered by the Brush Creek/Hayden District. This acreage includes 1,587 acres of private land, no state land, and 34,702 acres of National Forest System lands. Lodgepole pine (61%) and spruce/fir (24%) are the dominant vegetation types. Within the forested area, 39% is considered late successional. Grasses and shrubs comprise 10%. Willows, sedges, and rushes dominate riparian vegetation.

In the north half of the area, soil mass wasting potential is moderate, as is soil erosion potential. Most of the soil and water impacts are the result of turn-of-the-century tie dams and mine tailings on Douglas Creek. Extensive channel instability is apparent in Elk Creek, Dave Creek, and Bear Creek. In some cases, instability results from washed-out historic roads.

The area includes water development facilities for municipal water supply for the City of Cheyenne. The Cheyenne Board of Public Utilities (CBPU) manages this water supply system. Rob Roy Reservoir is the primary feature apparent on the landscape, but Stage I and II water conveyance pipelines to Lake Owen also exist in the area. Numerous streams to the south of Rob Roy Reservoir are diverted for use as part of the municipal water supply.

Rob Roy Reservoir, the most popular fishing reservoir on the District and upper Douglas Creek, the most popular fishing stream on the District. Despite its popularity, upper Douglas Creek has been heavily altered by historic mining and tie drives; the channel bed was dredged for mining and the stream itself was used to transport harvested timber. Lower sections of Douglas Creek have been, and continue to be, affected by the Cheyenne Stage I and II water diversion pipeline. Since the mid-1960s, Rob Roy Reservoir has regulated the flow regime in Douglas Creek.

Below the dam at Rob Roy, the Douglas Creek channel is in poor condition, with side channels, little instream structure, and significant gravel deposits. Upper reaches of the creek are above the water diversion, but the fish passage barrier created by Rob Roy affects fisheries. Bear Creek is affected by point source pollution from the historic Rambler Mine.

The current elk populations are above the herd unit objective, while mule deer populations are below. Moose, which are not native to the Forest, are increasing in numbers. Because of the area's higher elevations, the entire area is considered summer/fall range for elk and deer. Foraging habitat for bald eagles and osprey can be found at Rob Roy Reservoir. Rob Roy also supplies summer habitat for waterfowl.



## GEOGRAPHIC AREAS

The predominant ROS is roaded modified. There are three developed campgrounds, with Rob Roy being the largest. Dispersed camping, both remote and group sites, is also very popular. Rob Roy Reservoir is the main focal point in the area and is one of two bodies of water on the District where motorboats can be launched. Fishing is excellent in both Rob Roy and Douglas Creek, as well as in several other smaller creeks. Hunting is very popular due to the high number of roads and abundance of game. Spruce Mountain Fire Lookout is functional and, although it isn't used much for fire, is a good interpretive site. During the winter, this is a popular area for snowmobiling with miles of groomed trails and very dependable snow.

Evidence of historic use is widespread. The majority of the hundreds of cultural sites known to exist fall into two historic themes: Corps and Forest Service administrative sites and townsites and recreation residences/facilities. One site, Keystone Ranger Station, is listed on the National Register of Historic Places. Outstanding sites include American Indian sites, three standing tie dams, the Laramie-Encampment Wagon Road, Keystone Ranger Station, and the White Swan Mine.

Unique areas and features include the following:

- ♦ Cinnabar Park Special Interest Area (also in Middle Fork GA).
- ♦ Douglas Creek, Horse Creek, and Muddy Tie Dams Special Interest Areas.
- ♦ Rob Roy Reservoir.
- ♦ Spruce Mountain Lookout.
- ♦ Keystone administrative site.
- ♦ Cheyenne State I and II water pipeline.
- ♦ Significant prehistoric findings.
- ♦ Douglas Creek and Rob Roy Reservoir, sources of municipal water supply for Cheyenne, WY.

**Management Area Prescription Allocation** – The management area prescriptions applied to the Upper Douglas Creek Geographic Area are listed in the following table.

Table 3-44. Upper Douglas Creek management area prescriptions.

#	MA Prescription	Acres	Percent of Total Area
1.13	Wilderness, Semi-primitive	73	0
2.1	Special Interest Areas	191	1
5.13	Forest Products	16,686	46
5.15	Forest Products, Ecological Maintenance and Restoration Considering the Historic Range of Variability	17,431	48
8.21	Developed Recreation	264	1
8.6	Administrative Sites	75	0
	Nonfederal land	1,587	4
	Total	36,307	100

Source: GIS (ARC/Info), allocation and geographic area layers

### Geographic Area Desired Condition

Lodgepole pine and spruce/fir will continue to be the dominant cover types. In areas allocated to Management Area 5.13 (46%) in the southern and northwestern portions and Management Area 5.15 (48%) in the central portions, a variety of successional stages will be present. Forest stand density above Rob Roy Reservoir may be managed to maintain long-term water quality and quantity, while reducing the risk of catastrophic wildfire and insects and diseases.

Dispersed motorized recreation opportunities will dominate this area. Rob Roy Reservoir will continue to provide popular fishing and dispersed recreation opportunities.

### Geographic Area Objectives, Strategies, Standards, and Guidelines

Objective:

1. Maintain or enhance fire-dependent species such as aspen.

Strategy:

1. Develop a motorized trail system.

Guidelines:

1. Manage domestic sheep to provide adequate and effective separation from bighorn sheep, avoiding direct contact between the two.
2. Consider bighorn sheep management needs when conducting vegetative treatments.